

—Nineteenth Catalogue—

OF

The Arkansas

Industrial University

Fayetteville, Washington County, Ark.

FOR THE

90-91

Year Ending December 3, 1891,

AND

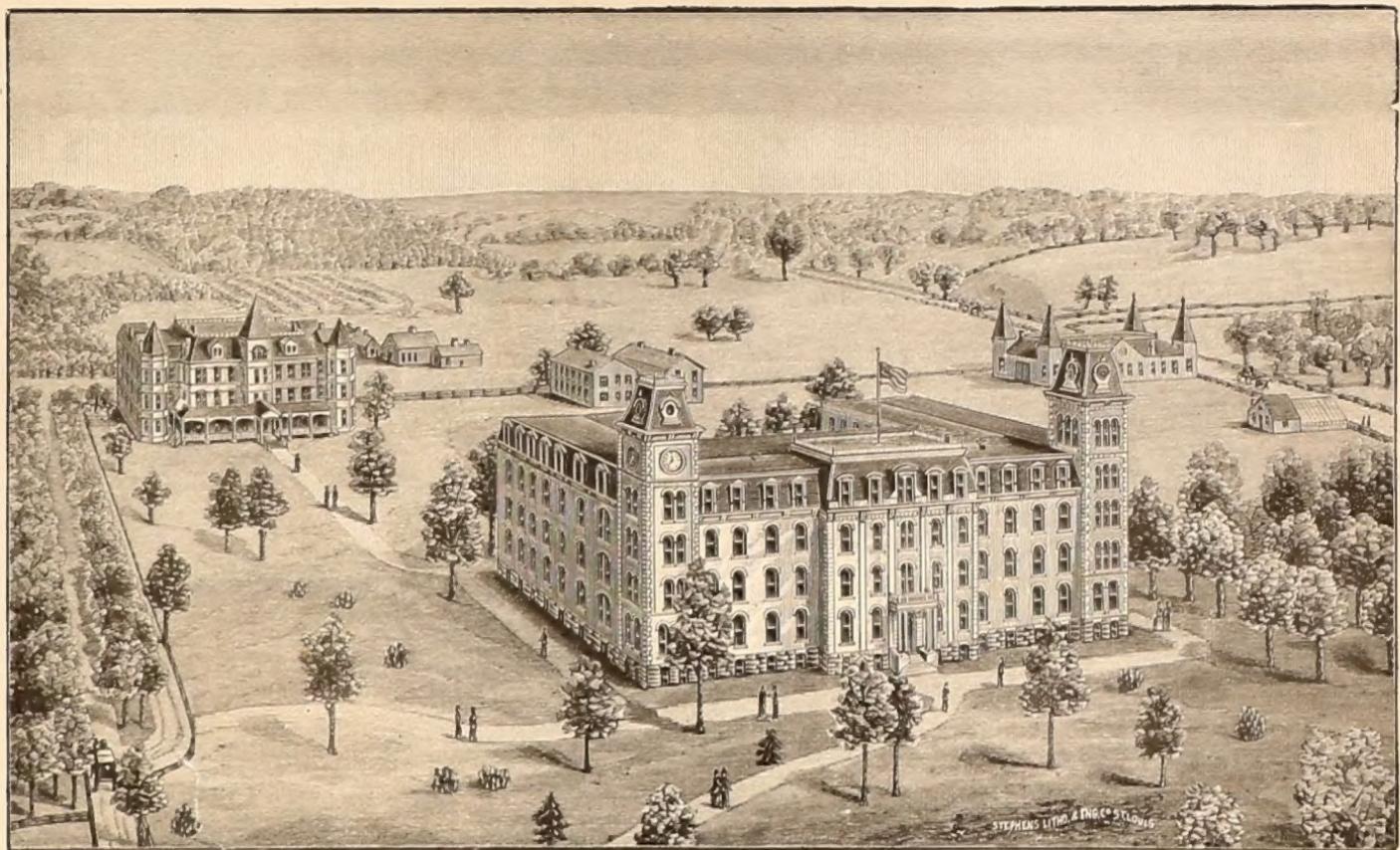
Announcement for 1892.

91-2

LITTLE ROCK, Ark.:

The Press Printing Company.

1892.



STEPHEN'S LITHO & ENGR CO. ST. LOUIS

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UNIVERSITY BUILDING.

The main University building (see frontispiece) is a magnificent structure of brick, four stories in height, with a stone basement and mansard roof. It occupies three sides of a quadrangle, and has a frontage of 214 feet.

In the north wing are situated the Chapel on the first floor, the Library on the second, and the Engineering Drawing Room on the third; in the south wing, the High School Hall for boys on the first floor, High School Hall for girls on the second.

The main front of the building is divided into offices, recitation rooms and laboratories. The offices of the President and the Commandant, and the rooms of the Preparatory and Musical Departments are on the first floor, the Departments of Mathematics, Engineering and Physics, Ancient and Modern Languages and Pedagogics have convenient rooms on the second floor, while the Departments of Agriculture and Chemistry, and Biology, Geology and Engineering are accommodated on the third floor. Above, on the fourth floor, are the commodious and well-furnished halls of the literary societies and the Museum.

This building covers an area of 26,108 square feet, and contains *seventy* rooms, together with broad corridors and ample stairways. As a safeguard against fire, and to insure uniform temperature, the entire building is heated throughout by steam.

The new Dormitory (see page 84), in accordance with legislative enactment, was erected by the Board of Trustees in 1887, and opened to the use of students in the Spring of 1888.

It is a substantial brick building three stories high, containing over forty rooms. In finish and appearance, both externally and internally, it is a model structure. The rooms are large, airy, well ventilated and lighted, and open into broad corridors extending lengthwise through the building. The entrances are five in number; three in front, which open upon a broad veranda, and two in the rear. As to location, every precaution has been taken to insure good health to its occupants. That proper care may be exercised, a member of the teaching body resides here with his family, and the University Faculty make a regular tour of inspection.

The building of the Agricultural Experiment Station is of brick, one story in height. It contains the office of the Director, the apartments of the Chemist, Horticulturist, Veterinarian and Entomologist, together with a commodious Chemical Laboratory, Weighing-Room, Microscope-Room and Store-Rooms.

The new Shop Building was erected in the Spring of 1889. It is of corrugated iron, 170 feet long, 40 feet wide and one story in height, with ample light and ventilation. The Wood-Room is 40x60 feet in size, the Metal-Room 40x40 feet, the Forge-Room 40x25 feet, and the Foundry 40x45 feet.

Connected with the Department of Agriculture are a large barn, stock shed, dairy house, fruit house and other necessary outbuildings.

ANNOUNCEMENTS FOR 1891-2

1891.

- September 1.—First term begins in the Branch Normal College at Pine Bluff.
November 4.—The session of the Medical Department at Little Rock begins.
November 29.—First term ends in the Branch Normal.
December 1.—Second term begins in the Branch Normal.

1892.

- March 1.—First term begins in all of the Departments of the University at Fayetteville.
March 2.—Second term ends in the Branch Normal.
March 5.—Third term begins in the Branch Normal.
April 6.—The session of the Medical Department at Little Rock ends.
May 27.—First term ends in all of the Departments of the University at Fayetteville.
May 30.—Second term begins in all of the Departments at Fayetteville.
June 7.—Third term ends in the Branch Normal.
August 26.—Second term ends in all of the Departments at Fayetteville.
August 29.—Third term begins in all of the Departments at Fayetteville.
November 27.—Baccalaureate sermon.
December 1.—Commencement in all of the Departments of the University at Fayetteville.

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Adjunct Professor of Mathematics.

HAROLD B. SMITH, M. E.,
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JESSIE L. CRAVENS, B. L.,
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Instructor in Music.

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Instructor in Woodworking.

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MRS. A. M. TYLER,
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JOHN COLLIN MASSIE, JR., A. B.,
First Assistant in the High School.

MARY E. WASHINGTON,
Assistant in the High School.

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Assistant in the High School.

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Assistant in the High School.

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Librarian.

GEORGE VAUGHAN, CARL HOLLIS,
Assistant Cataloguers in the Library.

G. H. STRANGE, T. L. DAVIS,
Assistants in the Library.

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PROFESSOR MEEK,
Curator of the Museum.

BLANCHE BIBB,
Secretary to the President.

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Foreman of the Farm.

J. M. MOORE,
Assistant Foreman of the Farm.

PROFESSOR MASSIE.
Superintendent of Dormitories.

WILLARD FRENCH,
Engineer.

GEORGE KLEIN,
Janitor.

AT LITTLE ROCK.

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Professor of General, Descriptive and Surgical Anatomy, and President of the Faculty.

A. L. BREYSACHER, M. D.,
Professor of Obstetrics and Diseases of Women and Children.

JOHN J. McALMONT, M. D.,
Professor of Materia Medica, Therapeutics, Hygiene and Botany.

JAMES H. SOUTHALL, M. D.,
Professor of Practice of Medicine.

ROSCOE G. JENNINGS, M. D.,
Professor of Clinical Surgery and Dermatology.

W. P. BAKER, M. D.,
Professor of Medical Chemistry and Toxicology.

L. P. GIBSON, M. D.
Demonstrator of Anatomy.

T. E. MURRELL, M. D.,
Professor of Ophthalmology and Otology.

JAMES H. LENOW, M. D.,
Professor of Diseases of Genito-Urinary Organs.

CLAIBOURNE WATKINS, M. D.,
Physical Diagnosis and Clinical Medicine.

LOUIS R. STARK, M. D.,
Professor of Gynecology.

E. R. DIBRELL, M. D.,
Professor of Institutes of Medicine.

W. H. MILLER, M. D.,
Prosector of Anatomy.

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Professor Medical Jurisprudence.

F. H. CLARKE,
U. S. Weather Bureau, Meteorology.

SAM PRIOR,
Janitor at the Medical College.

R. G. JENNINGS, M. D.,
Secretary of Medical Faculty, Little Rock, Ark.

THE AGRICULTURAL EXPERIMENT STATION.

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President of the University.
Director of the Station.

OFFICERS.

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R. R. DINWIDDIE.....	Veterinarian
JOHN T. STINSON.....	Horticulturist
F. W. KILLEN.....	Assistant Chemist
GEO. B. IRBY.....	Assistant Agriculturist at Newport
B. M. BAKER.....	Assistant Agriculturist at Pine Bluff

CATALOGUE OF STUDENTS

ABBREVIATIONS.—Ph. D., Doctor of Philosophy; B. A., Bachelor of Arts'; C. E., Civil Engineering; M. E., Mechanical Engineering; B. S., Bachelor of Science; B. S. A., Bachelor of Scientific Agriculture; L. I., Licentiate of Instruction; Ir., Irregular.

SESSION 1891.

COLLEGIATE DEPARTMENT.

POST GRADUATES.

NAME.	RESIDENCE.	COURSE.
George W. Droke, A. M.	Fayetteville, Ark.	Ph. D.
J. Collin Massie, A. B.	Fayetteville, Ark.	Ph. D.
Ida Pace, A. B.	Harrison, Ark.	Ph. D.
Anna M. Waggener, B. L.	Fayetteville, Ark.	Ph. D.
Naomi J. Williams, A. M.	Fayetteville, Ark.	Ph. D.
Total		5

SENIORS.

NAME.	RESIDENCE.	COURSE.
Drake, C. H.	Cincinnati, Washington county	C. E.
Goodwin, Wm. S.	Warren, Bradley county	B. A.
Horton, S. A.	Fairview, Dallas county	B. A.
Humphreys, J.	Fort Smith, Sebastian county	Ir.
Martin, Mack	Hackett City, Sebastian county	M. E.
Newman, A. J.	Lonoke, Lonoke county	B. A.
Patton, C. C.	Fayetteville, Washington county	B. A.
Shreve, A. W.	Farmington, Washington county	C. E.
Shreve, H. B.	Farmington, Washington county	C. E.
Skelton, G. V.	Fayetteville, Washington county	C. E.
Total number of pupils in Senior Class		10

JUNIOR CLASS.

NAME.	RESIDENCE.	COURSE.
Arbuckle, J. D.	Charleston, Franklin county	B. A.
Black, J. W.	Franklin, Izard county	B. A.
Blackwell, W. I.	Perryville, Perry county	C. E.
Curry, Lula	Fayetteville, Washington county	B. S.
Hamilton, W. J.	Hartford, Sebastian county	B. A.
Holcomb, Cener	Fayetteville, Washington county	B. A.
Kimball, G. H.	Dardanelle, Yell county	C. E.
Pharr, J. S.	La Grange, Lee county	B. A.
Vaulx, Julia	Fayetteville, Washington county	B. A.
Vaulx, Samuel	Fayetteville, Washington county	B. A.
Wood, A. C.	Fayetteville, Washington county	M. E.
Wood, B. F.	Fayetteville, Washington county	M. E.
Total number of pupils in Junior Class		12

SOPHOMORE CLASS.

NAME	RESIDENCE	COURSE.
Armistead, C. F.....	Charleston, Franklin county.....	B. A.
Ash, L. R.....	Fayetteville, Washington county.....	C. E.
Bibb, Blanche.....	Franklin, Kentucky.....	N. B. A.
Braly, E. H.....	Fayetteville, Washington county.....	B. A.
Brewer, O. P.....	Webber's Falls, Indian Territory.....	B. S.
Crawford, W. A.....	Boonsboro, Washington county.....	B. A.
Davies, Hadge.....	Fayetteville, Washington county.....	B. A.
Ellis, Mark.....	Springdale, Washington county.....	B. A.
Evins, Adah.....	Boonsboro, Washington county.....	L. I.
Green, Frank.....	Harrison, Boone county.....	B. S.
Gates, H.....	Springfield, Mo.....	L. I.
Hall, Ed. C.....	Dardanelle, Yell county.....	C. E.
Harris, Rena.....	Fayetteville, Washington county.....	B. S.
Hedrick, I. G.....	Boonsboro, Washington county.....	C. E.
Holcomb, Bruce.....	Fayetteville, Washington county.....	B. S.
Hughes, G. A.....	Osage Mills, Benton county.....	C. E.
Ilett, Edward.....	Fort Smith, Sebastian county.....	C. E.
Killen, F. W.....	Fayetteville, Washington county.....	Ir.
Martin, Pearl.....	Fayetteville, Washington county.....	B. S.
Moore, J. F.....	Fayetteville, Washington county.....	B. S.
Moore, J. H.....	Fayetteville, Washington county.....	B. S.
Morrow, S. Y.....	Fayetteville, Washington county.....	B. S. A.
Pharr, Harry.....	La Grange, Lee County.....	C. E.
Rawlings, J. O.....	Waldron, Scott county.....	B. S.
Smith, Ernest.....	Charleston, Franklin county.....	C. E.
Vance, A. M.....	Pierce City, Mo.....	C. E.
Vandeventer, James.....	Fayetteville, Washington county.....	B. S.
Vandeventer, Willie	Fayetteville, Washington county.....	B. S.
Total number of pupils in Sophomore Class.....		28

FRESHMAN CLASS.

NAME.	RESIDENCE.	COURSE.
Barr, Ida.....	Fayetteville, Washington county.....	B. S.
Basden, John H.....	Hope, Hempstead county.....	L. I.
X Braly, Etta.....	Fayetteville, Washington county.....	B. S.
Brandon, W. E.....	Huntington, Sebastian county.....	C. E.
Brookfield, Ben.....	Fayetteville, Washington county.....	C. E.
Brooks, Minnie.....	Fayetteville, Washington county.....	B. S.
Curry, Lizzie.....	Fayetteville, Washington county.....	L. I.
Dyer, Mallie.....	Prairie Grove, Washington county.....	L. I.
Eld, C. J.....	Bentonville, Benton county.....	
Evins, A. W.....	Boonsboro, Washington county	C. E.
Ferguson, Gussie.....	Fayetteville, Washington county.....	B. S.
Futrell, J. M.....	Fayetteville, Washington county.....	B. A.
Gibson, J. E.....	Malvern, Hot Spring county.....	M. E.
Gideon, D. C.....	Cotton Plant, Monroe county.....	B. S.
Glover, O. L.....	Viney Grove, Washington county.....	B. A.
Godfrey, J. H.....	Pine Bluff, Jefferson county.....	B. A.
Groves, F. M.....	Waldo, Columbia county.....	B. A.
Head, J. D.....	Richmond, Little River county	B. A.
Hedrick, Otis.....	Robinson, Benton county.....	B. S.
Howerton, C. T	Fayetteville, Washington county.....	B. S.
Humphry, C. A.....	Fort Smith, Sebastian county.....	B. A.

NAME.	RESIDENCE.	COURSE.
Hust, R.....	Bentonville, Benton county.....	B. S.
Hust, H.....	Bentonville, Benton county.....	B. A.
James, Aggie.....	Fayetteville, Washington county.....	B. S.
Kerr, E. W.....	Pittsburg, Pennsylvania	C. E.
Lane, J. R.....	Dallas, Pops county.....	B. A.
Lawrence, R. L.....	Appleton, Pope county	B. S. A.
Leverett, Charles.....	Fayetteville, Washington county.....	B. S. A.
Leverett, Abbie.....	Fayetteville, Washington county	B. A.
X Lipsey, Dan B.....	Fayetteville, Washington county.....	B. A.
Martin, J. R.....	Warren, Bradley county	B. S.
Martin W. Howard.....	Hackett City, Sebastian county.....	B. S.
McDearmon, B. C.....	Batesville, Independence county	B. A.
McMullin, R. D.....	Centerville, Yell county.....	B. S.
Morley, May.....	Fayetteville, Washington county	B. S.
Morrow, Fred R.....	Fayetteville, Washington county	C. E.
Moulden, J. P.....	Plano, Collin county, Texas	M. E.
Nash, John D.....	Waldo, Columbia county	B. A.
Neal, W. J.....	Van Buren, Crawford county	L. I.
Owens, Phoebe.....	Fayetteville, Washington county	B. S.
Pittman, R.....	Fayetteville, Washington county	B. S.
Purdy, J. C.....	Lake Providence, La	M. E.
Purdy, S. M.....	Lake Providence, La.....	C. E.
Robinson, J. F.....	Lonoke, Lonoke county	B. S.
Rosser, Alta.....	Evansville, Washington county.....	L. I.
X Russell, Chester.....	Russellville, Pope county	B. A.
Rutherford, H. H.....	Fort Smith, Sebastian county	B. A.
Slagle, Guy.....	Hico, Benton county	C. E.
Speer, George H.....	Cedar Glades, Montgomery county	B. A.
Stearnes, Mattie.....	Fayetteville, Washington county	L. I.
Taff, S. M.....	Fayetteville, Washington county	C. E.
Treadwell, S. C.....	Fayetteville, Washington county	L. I.
Trott, E. W.....	Fayetteville, Washington county	B. S.
X Vaughan, George.....	Lockesburg, Sevier county	B. S.
Vaulx, Madge.....	Fayetteville, Washington county	B. A.
Wade, Lena.....	Fayetteville, Washington county	L. I.
White, Lula.....	Fayetteville, Washington county	B. S.
Williams, Matie.....	Fayetteville, Washington county	L. I.
Wilson, Nellie.....	Fayetteville, Washington county	B. S.
Wood, Christian.....	Buckner, Columbia county	L. I.
Total number of pupils in Freshman Class		60

SUB-FRESHMAN CLASS.

NAME.	RESIDENCE	COURSE.
Allen, Edna.....	Farmington, Washington county	B. S.
Ambrose, C. D.....	Fayetteville, Washington county	B. S.
Ash, W. D.....	Fayetteville, Washington county	C. E.
Baker, E. N.....	Witcherville, Sebastian county	B. S.
Barnett, Carl.....	Fayetteville, Washington county	G. E.
Barr, Frank.....	Fayetteville, Washington county	B. S. A.
Bates, C. D.....	Van Buren, Crawford county	B. A.
Beattie, Mary.....	Fayetteville, Washington county	B. A.
Bell, John	Pontotoc, Miss	B. A.
Benbrook, Agnes	Fayetteville, Washington county	B. S.
Benton, J. L.....	Fayetteville, Washington county	B. S. A.

NAME.	RESIDENCE.	COURSE.
Black, W. M.	Fort Smith, Sebastian county	B. S.
Boyd, Robert	Paragould, Greene county	L. I.
Braly, Amanda	Fayetteville, Washington county	B. S.
Brant, Henry	Appleton, Pope county	B. S. A.
Broyles, Ida	Fayetteville, Washington county	B. S.
Butts, John	Prairie View, Logan county	B. S. A.
Cabell, May	Fort Smith, Sebastian county	B. S.
Chauncey, A. H.	Cecil, Franklin county	B. A.
Childers, C. C.	Imboden, Lawrence county	B. S.
Clark, D. S.	Marianna, Lee county	B. A.
Clark, Charles	Waldo, Columbia county	
Cornelius, Rose	Van Buren, Crawford county	L. I.
Counterman, R. M.	Dayton, Sebastian county	B. S. A.
Cole, Kate	Fayetteville, Washington county	B. S.
Crawford, Maude	Fayetteville, Washington county	B. S.
Cravens, H.	Fayetteville, Washington county	B. A.
Crozier, A.	Fayetteville, Washington county	C. E.
Crozier, J. P.	Fayetteville, Washington county	M. E.
Daniel, J. M.	Laneburg, Nevada county	B. S.
Davies, Lila	Fayetteville, Washington county	B. A.
Davis, F. L.	Greenway, Clay county	B. A.
Dowell, F.	Fayetteville, Washington county	B. S. A.
Evins, F. P.	Fayetteville, Washington county	M. E.
Frazier, J.	Fayetteville, Washington county	C. E.
Galloway, E.	Fayetteville, Washington county	C. E.
Grandy W. P.	Monticello, Drew county	B. S.
Griffith, Kate	Fayetteville, Washington county	B. S.
Grother, Mary	Fayetteville, Washington county	B. S.
Gunter, Gertie	Fayetteville, Washington county	B. S.
Hackett, J. F.	Hackett City, Sebastian county	B. S.
Hale, Irvin	Fayetteville, Washington county	M. E.
Hale, J. F.	Springdale, Washington county	L. I.
Halley, H. H.	Halley, Desha county	B. S.
Hardin, Lena	Fayetteville, Washington county	L. I.
Hardin, Nina	Fayetteville, Washington county	L. I.
Hardin, J. L.	Fayetteville, Washington county	C. E.
Harper, W. B.	Mansfield, Sebastian county	C. E.
Harris, Alice	Fayetteville, Washington county	B. S.
Harris, Julia	Whitney, Texas	L. I.
Hayes, C. E.	Clarksville, Johnson county	B. S.
Henderson, A. A.	Osage Mills, Benton county	B. S.
Hilderbrand, H.	Crawfordsville, Crittenden county	C. E.
Hollis, Carl	Orlando, Cleveland county	B. S.
Howell, W.	Fayetteville, Washington county	M. E.
Hudspeth, J. L.	Hamburg, Ashley county	B. A.
Hughes, Mary	Osage Mills, Benton county	B. S.
Jackson, Oz	Fayetteville, Washington county	B. S.
Jackson, Lewis	Fayetteville, Washington county	B. A.
Jackson, Willie	Fayetteville, Washington county	B. S.
Jackson, Hugh	Fayetteville, Washington county	B. S.
Jones, Arthur	Amity, Clark county	B. A.
Jones, Alice	Forrest City, St. Francis county	B. S.
Knight, H. L.	Huntsville, Madison county	B. S.
Lee, Carrie	Fayetteville, Washington county	B. S.

NAME.	RESIDENCE.	COURSE.
Lee, Eva	Fayetteville, Washington county.....	B. A.
Lewis, L. L	Fayetteville, Washington county.....	B. A.
Love, R. C	Mountain Home, Baxter county.....	B. A.
Love, B. F	Mountain Home, Baxter county.....	B. A.
Lowery, E. C	Huntsville, Madison county.....	B. S.
Lloyd, Byron	Oak Forrest, Lee county	B. A.
Martin, Perry	Lowell, Benton county.....	B. S.
McBride, Mamie	Boonsboro, Washington county.....	B. S.
McClure, Trudie	Buckner, Columbia county.....	B. S.
McCoy, W. H	Buckner, Columbia county.....	B. S.
McCrimmon, Alice	Fayetteville, Washington county.....	B. S.
McIlroy, Kate	Fayetteville, Washington county.....	B. S.
McMillan, Charles	Pine Bluff, Jefferson county	M. E.
McNair, Maude	Fayetteville, Washi.gton county	B. S.
Medlin, Robert	Alma, Crawford county	B. S.
Merritt, M.	Buckner, Columbia county.....	B. S.
Miser, Esther	Pea Ridge, Benton county	B. S.
Mooney, Mary	Fayetteville, Washington county	B. S.
Mooney, Robert	Fayetteville, Washington county.....	B. S.
Moore, J. J	Cincinnati Columbia county	B. S.
Moore, Martha	Fayetteville, Washington county	B. S.
Motherall, Annie	San Marcus, Texas	B. A.
Mullins, J. S	Fayetteville, Washington county	B. S.
Murry, John	Lockesburg Nevada county	L. I.
Neal, Abbie	Fayetteville, Washington county	B. S.
Nichols, L. E	Clarksville, Johnson county	B. S.
Nix, Maude	Fayetteville, Washington county	B. S.
Nolen, L. C	Sub Rosa, Franklin county.....	B. A.
Perry, J. W	Redland, I T	M E.
Pettigrew, J. B	Charleston, Franklin county.....	C. E.
Pettigrew, Nellie	Fayetteville, Washington county	B. A.
Porter, J. R	Harmony, Johnson county	B. A.
Price, C. C	Evening Shade, Sharp county	B. S.
Putnam, W. H	Pea Ridge, Benton county	C. E.
Rattenbury, Edith	Fayetteville, Washington county	B. S.
Rawlings, Frank	Waldron, Scott county	B. S.
Riley, Cora	Fayetteville, Washington county	B. S.
Rosser, Jettie	Evansville, Washington county	B. S.
Russell, David	Morrilton, Conway'county	B. S.
Rutherford, S. C	Moffit, Washington county	L. I.
Sadler, Daisy	Fayetteville, Washington county	B. S.
Scott, Mamie	Fayetteville, Washington county	B. S.
Self, Thomas	Little Rock, Pulaski county	B. S.
Shinn, J. R	Lockesburg, Sevier county	B. A.
Simonds, Allie	Fayetteville, Washington county	B. S.
Smith, Gertie	Fayetteville, Washington county	B. S.
Smith, Albert	Fayetteville, Washington county	M. E.
Spencer, W. M	Charleston, Franklin county	C. E.
Spears, Thomas R	Clarksville, Johnson county	B. S. A.
Speir, Thomas U	Speir, Crawford county	B. S.
Suggs, C. F	Little Rock, Pulaski county	C. E.
Swope, Maggie	Fayetteville, Washington county	L. I.
Taylor, Mattie	Fayetteville, Washington county	B. S.
Thompson, Frank	Lonoke, Lonoke county	B. S.

NAME.	RESIDENCE.	COURSE.
Treadwell, M. F.....	Fayetteville, Washington county.....	B. A.
Vaulx, Kate.....	Fayetteville, Washington county.....	B. S.
Wade, Lila.....	Fayetteville, Washington county.....	B. A.
Wainwright, Joe.....	Fayetteville, Washington county	B. A.
Wainwright, J.....	Fayetteville, Washington county.....	C. E.
Washington, R.....	Cincinnati, Washington county.....	B. S.
White, Fannie.....	Dutch Mills, Washington county.....	L. I.
Williams, Jennie.....	Fayetteville, Washington county.....	B. A.
Williams, W. M.....	Fayetteville, Washington county.....	B. S.
Willis, Stark.....	Graysport, Grenada county, Miss	B. A.
Wilson, J. C.....	Summerville, Calhoun county	L. I.
Wilson, G. R.....	Fayetteville, Washington county	B. A.
Witt, Earle.....	Conway, Faulkner county	B. S.
Wood, W. H.....	Fayetteville, Washington county.....	M. E.
Wood, J. L.....	Clarksville, Johnson county.....	B. S. A.
Wood, Norma.....	Van Buren, Crawford county.....	B. A.
Wooten, Daisy.....	Hot Springs, Garland county.....	B. A.
Wright, Archie.....	Fayetteville, Washington county.....	B. S.
Wright, R. R.....	Burnsville, Sebastian county	B. S. A.
Total number of pupils in Sub-Freshman Class.....		138

A CLASS.

NAME.	RESIDENCE.	COURSE.
Adams, C. D.....	Fayetteville, Washington county.....	B. S.
Anderson, R. S.....	Fayetteville, Washington county.....	C. E.
Appleby, George.....	Fayetteville, Washington county.....	C. E.
Ash, Ed. N.....	Fayetteville, Washington county	C. E.
Bare, Joshua.....	Piggott, Clay county	B. S. A.
Beattie, Godwin.....	Fayetteville, Washington county	B. S.
Beavers, E. J.....	Charleston, Franklin county	C. E.
Belden, W. R.....	Chismville, Logan county.....	C. E.
Bibb, Lillian D.....	Franklin, Simpson county, Ky.....	B. A.
Bishop, Annie.....	Fayetteville, Washington county	B. S.
Blakely, William R.....	Fordyce, Dallas county.....	B. S.
Bradley, John B.....	Walnut Hills, Lafayette county.....	B. S.
Braly, E. K.....	Fayetteville, Washington county.....	C. E.
Brookfield, Vida.....	Fayetteville, Washington county.....	B. S.
Brown, Harold.....	Fayetteville, Washington county	B. S.
Brown, E. M.....	Fayetteville, Washington county.....	B. S. A.
Bruce, Ed. R.....	Conway, Faulkner county	B. S.
Burchan, L. C.....	Pauline, Franklin county	C. E.
Buercklin, Fred W.....	Fayetteville, Washington county	M. E.
Burke, M. V.....	Fayetteville, Washington county	B. S. A.
Cabell, Jennie.....	Fayetteville, Washington county	B. S.
Cagwin, E. C.....	Fort Smith, Sebastian county	B. S.
Campbell, Herbert.....	Fayetteville, Washington county	B. A.
Carrigan, B. B.....	Washington, Hempstead county	B. A.
Carter, Jessie.....	Fayetteville, Washington county	B. S.
Clancy, Nellie.....	Fayetteville, Washington county	B. S.
Clifton, Joseph A.....	Conway, Faulkner county	B. S.
Cole, Lillie.....	Fayetteville, Washington county	B. S.
Cole, Mattie.....	Fayetteville, Washington county	B. S.
Cole, Charles.....	Fayetteville, Washington county	M. E.
Cole, O. H.....	Fayetteville, Washington county	L. I.

NAME.	RESIDENCE	COURSE.
Conner, Birdie.....	Fayetteville, Washington county.....	B. S.
Cooper, E. T.....	Fayetteville, Washington county.....	B. S.
Cotter, Joseph S.....	Chismville, Logan county.....	B. S.
Cawood, V. Henry.....	Osage Mills, Benton county.....	B. S.
Cox, Robert S.....	Gassville, Baxter county.....	B. A.
Darr, William E.....	Atkins, Pope county	B. S.
Davies, Ena	Fayetteville, Washington county.....	B. S.
Davis, Maude	Fayetteville, Washington county.....	B. S.
Davis, John M.....	Clarksville, Johnson county	B. S.
Drees, C. J	Little Rock, Pulaski county	B. S.
Ellis, Maggie	Fayetteville, Washington county.....	B. S.
Ellison, Don	Ola, Yell county.....	B. S.
Evins, Hugh C	Fayetteville, Washington county.....	B. S.
Fleming, Arch.....	Fayetteville, Washington county.....	B. S.
Fromholtz, F. E.....	Lonoke, Lonoke county.....	C. E.
Gates, Oscar M.....	Fayetteville, Washington county.....	B. S. A.
Glenny, Ernest	Eureka Springs, Carroll county	B. S. A.
Griffith, Alma.....	Fayetteville, Washington county	B. S.
Guilliams, Jesse M.....	Farmington, Washington county.....	B. S. A.
Guilliams, R. P.....	Farmington, Washington county	B. S. A.
Guilliams, W. E.....	Farmington, Washington county	B. S. A.
Hale, W	Fayetteville, Washington county.....	L. I.
Hale, Gurtha	Lufra, Ouachita county	B. S. A.
Halley, Dixie	Halley, Desha county.....	B. A.
Hammett, Lee	Fort Smith, Sebastian county	C. E.
Hargus, John	Kingsland, Cleveland county	M. E.
Haws, J. P.....	Fayetteville, Washington county.....	B. S.
Hayes, S. G.....	Cotton Plant, Woodruff county.....	C. E.
Hagood, Clara	Boonsboro, Washington county	B. S.
Hicks, J. W.....	Magnolia, Columbia county	B. S.
Hocott, J. J	Riverside, Woodruff county	B. S. A.
Holcombe, Joe Belle	Fayetteville, Washington county	B. S.
Hopper, John R.....	Riverside, Woodruff county	B. S. A.
Howell, Carrie.....	Fayetteville, Washington county	B. S.
Hunt, Nellie	Fayetteville, Washington county	B. S.
Hunt, S. L	Fayetteville, Washington county	B. S.
James, T. H	Fayetteville, Washington county	B. S.
Johnson, S. J.....	Fayetteville, Washington county	B. S.
Johnson, R. L.....	Jonesboro, Craighead county	B. A.
Jones, Fred.....	Fayetteville, Washington county	B. S.
Jones, L. R.....	Fayetteville, Washington county	B. S.
Kemp, Fannie	Fayetteville, Washington county	B. S.
Kenner, R. B.....	Osage, Carroll county	B. S.
King, O. O	Harmony, Johnson county	B. S.
Kirby, Bertie	Boonsboro, Washington county	L. I.
Lane, Mattie	Fayetteville, Washington county	B. S.
Lane, S.	McCrary, Woodruff county	B. S. A.
Lassiter, N. A.....	Mulberry, Franklin county	B. S. A.
Lawler, T. D	Little Rock, Pulaski county	B. S.
Lee, R. R	Deaslee, Lafayette county	B. S.
Lee, S.	Lewisville, Lafayette county	B. S.
Leverett, Rose	Fayetteville, Washington county	B. S.
Lewis, Lena.....	Fayetteville, Washington county	B. S.
Lipsey, Alva	Fayetteville, Washington county	B. S.

NAME.	RESIDENCE.	COURSE.
Logan, D. P.	New Lewisville, Lafayette county	B. A.
Loller, Tennie	Fayetteville, Washington county	B. S.
Luther, Lula	Fayetteville, Washington county	B. S.
Marshall, C. D.	Little Rock, Pulaski county	M. E.
Mayes, Cora	Fayetteville, Washington county	B. S.
Mayes, Lula	Fayetteville, Washington county	B. S.
Mayes, W. L.	Pryor's Creek, I. T.	B. S.
May, Mamie	Fayetteville, Washington county	B. S.
McCoy, H. S.	Robinson, Benton county	B. S. A.
McCreight, Luther	Brinkley, Monroe county	M. E.
McNair, May	Fayetteville, Washington county	B. S.
Miller, F. H.	Huntington, Sebastian county	B. S. A.
Mills, Fannie	Clarendon, Monroe county	L. I.
Mioix, T. N.	Robinson, Benton county	B. S. A.
Mitchell, S.	Greenway, Clay county	B. S. A.
Moberly, E.	Illawara, East Carroll county	B. S.
Moberly, H.	Illawara, East Carroll county	B. S.
Mobley, J. C.	Jonesboro, Craighead county	B. A.
Montgomery, Percy	Jacksonville, Pulaski county	B. S.
Moore, Ada	Cincinnati, Washington county	B. S.
Moore, Pearl	Fayetteville, Washington county	B. S.
Morgan, G. K.	Van Buren, Crawford county	B. S.
Morley, Claude	Fayetteville, Washington county	B. S.
Morris, Charles	Harrison, Boone county	B. S.
Munn, J. B.	Laneburg, Nevada county	B. S.
Murfee, Howard	Fayetteville, Washington county	B. S.
Murfee, M.	Fayetteville, Washington county	B. S.
Myers, Cora	Fayetteville, Washington county	B. S.
Myers, Belva	Fayetteville, Washington county	B. S.
Morrow, R. M.	Fayetteville, Washington county	C. E.
Nail, G. W.	Surrounded Hill, Prairie county	B. S.
Oliver, M.	Fayetteville, Washington county	B. S.
Paris, E. C.	Fayetteville, Washington county	E. C.
Perry, Mary	Redland, I. T.	B. S.
Perry, S. C.	Redland, I. T.	M. E.
Porter, W.	Clarksville, Johnson county	B. A.
Putnam, Leigh	Fayetteville, Washington county	B. S.
Ray, H. W.	Queen City, Texas	B. S.
Redwine, Lee	Cavanaugh, Sebastian county	M. E.
Reynolds, Hattie	Boonsboro, Washington county	B. S.
Roark, Lizzie	Fayetteville, Washington county	B. S.
Rose, Milton	Little Rock, Pulaski county	B. S.
Sadler, Hoyt	Fayetteville, Washington county	B. S.
Sadler, Jasmine	Fayetteville, Washington county	B. S.
Sanderson, S. A.	Robinson, Benton county	L. I.
Schofield, W. C.	Weldon, Jackson county	B. A.
Self, B. F.	Little Rock, Pulaski county	C. E.
Schultz, W. M.	White Oak, Cleveland county	B. S.
Simmons, C. M.	Boydsville, Clay county	B. S.
Skelton, C. D.	Fayetteville, Washington county	C. E.
Shuler, Fred	Buckner, Columbia county	B. S.
Smith, J. M.	Malvern, Hot Spring county	L. I.
Sneed, Thomas F.	Clarksville, Johnson county	B. S.
Sangster, R.	Hazen, Prairie county	B. S. A.

NAME.	RESIDENCE.	COURSE.
Spencer, A. R.	Fayetteville, Washington county	B. S.
Spencer, J. I.	Fayetteville, Washington county	C. E.
Spencer, Mamie	Fayetteville, Washington county	B. S.
Spence, L.	Boydsville, Clay county	B. S. A.
Spencer, Leland	Charleston, Franklin county	B. S.
Stearnes, M.	Fayetteville, Washington county	L. I.
Strange, George	Buckner, Columbia county	B. S.
Stubblefield, A.	Cassville, Perry county	B. A.
Stubblefield, Dema	Fayetteville, Washington county	B. A.
Stubblefield, Ed A.	Fayetteville, Washington county	B. A.
Swift, J. M.	Smeadley, Johnson county	B. S.
Taylor, Rose	Fayetteville, Washington county	B. S.
Thurman, C.	Cincinnati, Washington county	B. S.
Thomas, H. M.	Forrest City, St. Francis county	B. S.
Thomason, J. D.	Cincinnati, Washington county	B. S.
Turner, N. G.	Marvell, Phillips county	B. A.
Turner, B. E.	Marvell, Phillips county	B. S.
Turley, Lee	Forrest City, St. Francis county	B. S.
Vaughan, Mollie	Fayetteville, Washington county	B. S.
Volner, Charles	Fayetteville, Washington county	B. S.
Ward, W.	Mulberry, Franklin county	B. S.
Wells, J. M.	Alma, Crawford county	B. S.
Williams, Hattie	Fayetteville, Washington county	B. A.
Williams, Robert	Lonoke, Lonoke county	B. S.
Willis, Lewis	Graysport, Grenada county, Miss.	B. S.
Woodin, F. H.	Texarkana, Miller county	B. S.
Woods, C. L.	Hackett City, Sebastian county	B. A.
York, J. M.	Fayetteville, Washington county	B. S. A.
Young, P. T.	Magnolia, Columbia county	B. S.
Total number of pupils in "A" Class		168

B CLASS.

NAME.	TOWN.	COUNTY.
Adams, Isaac	Fort Smith	Sebastian
Agee E. W.	Camden	Ouachita
Armstrong, A.	Van Buren	Crawford
Arnett, W. B.	Fayetteville	Washington
Baker, Minnie	Fayetteville	Washington
Baker, T. A.	Buckner	Columbia
Baum, Gertie	Fayetteville	Washington
Black, Leo	Lilly	Ouachita
Bloyed, Annie	Fayetteville	Washington
Boothe, W. A.	Boothe	Scott
Bradley, F.	Ozark	Franklin
Bradley, W. F.	Eureka Springs	Carroll
Brown, Mary	Fayetteville	Washington
Cole, Lizzie	Dardanelle	Yell
Cole, Lula	Fayetteville	Washington
Coleman, L. R.	Cavanaugh	Sebastian
Conner, Ethel	Fayetteville	Washington
Cookson, S.	Fayetteville	Washington
Curry, Merle	Fayetteville	Washington
Curry, Roy	Fayetteville	Washington
Davidson, J. R.	Ozark	Franklin

NAME.	TOWN.	COUNTY.
DeBois, J. T.	Judsonia	White
Demarcke, E. L.	Arkansas City	Deshaw
Dollarhide, J. M.	Lockesburg	Sevier
Drake, J. A.	Buckner	Columbia
Duncan, Eleanor	Fayetteville	Washington
Eldridge, Elmer	Brinkley	Monroe
Embry, Ernest	Atkins	Pope
Fleming, Pearl	Fayetteville	Washington
Goodrich, Oliver	Brinkley	Monroe
Gray, D. R.	LaGrange	Lee
Gray, B. C.	Fayetteville	Washington
Guilliams, G. N.	Farmington	Washington
Hardin, Kate	Fayetteville	Washington
Harper, George R.	Mansfield	Sebastian
Hayden, C.	Chouteau, I. T.	—
Henderson, May	Osage Mills	Benton
Howell, Henry	Russellville	Pope
Hughes, Irvin	Dickey	Pulaski
Hunt, Howard	Fayetteville	Washington
Ingram, J. H.	Conway	Faulkner
James, D. W.	Fayetteville	Washington
James, R. M.	Fayetteville	Washington
Jones, D.	Fayetteville	Washington
Kantz, Maggie	Fayetteville	Washington
Kincheloe, J. A.	Conway	Faulkner
Kosminsky, Leonce	Texarkana	Miller
Kosminsky, Lewis	Texarkana	Miller
Kosminsky, Ray	Texarkana	Miller
Lackey, Annie	Fayetteville	Washinton
Lackey, Daisy	Fayetteville	Washington
Lang, Ed	Fayetteville	Washington
Lewis, Lizzie	Boonsboro	Washington
Long, Tommie	Fayetteville	Washington
Luther, Clarence	Fayetteville	Washington
Macon, Thomas	Little Rock	Pulaski
Masie, F.	Huntsville	Madison
Mayes, Joe	Prior's Creek, I. T.	—
Mayes, P.	Fayetteville	Washington
McDaniel, A. J.	Forrest City	St. Francis
McDaniel, J. H.	Forrest City	St. Francis
McNeely, W. A.	Ashville	Pulaski
McNeil, D.	Fayetteville	Washington
Mills, Tina	Clarendon	Monroe
Milam, T. R.	Sub Rosa	Franklin
Milam, A. J.	Sub Rosa	Franklin
Mankar, S. A.	Mulberry	Franklin
Morrow, Lulu	Fayetteville	Washington
Perry, Ben	Ben Lomond	Sevier
Provine, A	Honey Grove, Tex	—
Ragsdale, O. O.	Siloam Springs	Benton
Robinson, Mary	Fayetteville	Washington
Sadler, F. Q.	Ozark	Franklin
Seamans, Isaac	Arkansas City	Deshaw
Scott, Olive	Fayetteville	Washington

NAME.	TOWN.	COUNTY.
Shannon, Dora.....	Fayetteville.....	Washington
Sherwood, A. H.....	Fayetteville.....	Washington
Shapard, Vaulx.....	Hickman, Ky.....	
Speir, C. M.....	Speir.....	Crawford
Speir, Mary.....	Speir.....	Crawford
Stone, May.....	Fayetteville.....	Washington
Stubblefield, Garfield.....	Fayetteville.....	Washington
Stubblefield, Frank.....	Fayetteville.....	Washington
Swope, Allie.....	Fayetteville.....	Washington
Taylor, C.....	Fayetteville.....	Washington
Thompson, S. W.....	Honey, Grove, Tex.....	
Thorne, W. E.....	Marked Tree.....	Poinsett
Wade, J. S.....	Fayetteville.....	Washington
Ward, O.....	Staunton.....	Washington
Warren, J. L.....	Buckner.....	Columbia
White, Ittie.....	Fayetteville.....	Washington
White, Fred.....	Fayetteville.....	Washington
Williams, Fred.....	Paris.....	Logan
Total number of pupils in "P" Class.....		93

IRREGULAR.

NAME.	TOWN.	COUNTY.
Core, Elias.....	Boonville.....	Logan
Humphreys, J.....	Fort Smith.....	Sebastian
Killen, F.....	Fayetteville.....	Washington
Rutledge, Lena.....	Fayetteville.....	Washington
Thomas, Alice.....	Fayetteville.....	Washington
Total number of irregular pupils.....		5

NOT CLASSIFIED.

NAME.	TOWN.	COUNTY.
Brown, C. W.....	Dardanelle.....	Yell
Brookfield, J.....	Fayetteville.....	Washington
Gaskell, L.....	Fayetteville.....	Washington
Gilbreath, J. C.....	West Fork.....	Washington
Graham, Edwin.....	Malvern.....	Hot Spring
Harrison, Thomas.....	Fayetteville.....	Washington
Hart, Ralph.....	Thompson.....	Washington
Henley, J. F.....	St. Joe.....	Searcy
Keith, Charles.....	Cherokee City.....	Benton
Leverett, Edward.....	Fayetteville.....	Washington
Massie, O. H.....	Fayetteville.....	Washington
Mathews, Thomas.....	Marion.....	Crittenden
McKeever, W. A.....	Fayetteville.....	Washington
Monroe, C. D.....	Augusta.....	Woodruff
Moore, F. U.....	Fayetteville.....	Washington
Phillips, F.....	Fayetteville.....	Washington
Rattenbury, W.....	Fayetteville.....	Washington
Sample, Carl.....	West Fork.....	Washington
Sherwood, L. E.....	Fayetteville.....	Washington
Townsend, J.....	Little Rock.....	Pulaski
Total number.....		21

CLASS OF 1891.

G. V. Skelton, Valedictorian.

Mack Martin, Salutatorian.

DEGREES CONFERRED.

The following students received the degrees affixed to their names:

Drake, C. H.....	C. E.	Patton, C. C.....	B. A.
Horton, S. A.....	B. A.	Shreve, A. W.....	C. E.
Martin, Mack.....	M. E.	Shreve, H. B.....	C. E.
Newman, A. J.....	B. A.	Skelton, G. V.....	C. E.

SUMMARY BY CLASSES.

Post Graduates	5
Seniors	10
Juniors	12
Sophomores	28
Freshmen	60
Sub-Freshmen	138
A's	168
B's	93
Not classified	21
Irregulars	5
Law	6
Music	45
Elocution	60
Total	632
Names repeated (Music 17, Elocution 60, Irregulars 2)	79
Total at Fayetteville.....	573

*L. J.**39*

SUMMARY BY COURSES.

	Males.	Females.	Total.
Doctor of Philosophy	2	3	5
Bachelor of Arts	57	18	75
Bachelor of Science	117	85	202
Civil Engineering	52	..	52
Mechanical Engineering	24	..	24
Bachelor of Scientific Agriculture	33	..	33
Licentiate of Instruction	13	17	30
Irregular	2	..	..
"B" Students (courses not assigned)	64	29	93
Not classified	20	1	21
Irregular (in course and class)	1	2	3
Law students .....	..	..	6
Music pupils .....	..	..	45
Elocution pupils .....	..	..	60
Total .....	..	..	652
Names repeated (in music 17, elocution 60, irregular 2)	79		
Total at Fayetteville .....	..	..	571
Students in Medical Department, Little Rock .....	..	..	113
Students in Branch Normal, Pine Bluff .....	..	..	215
Grand total .....	..	..	901

THE UNIVERSITY AND THE STATE.

The University is at the head of the public educational system of the State of Arkansas. It seeks to foster the higher educational interests of the State, broadly and generously interpreted, and to make provision for the demands of advanced scholarship in as many lines as its means will permit. It is the effort of its Faculty and Board of Trustees, from year to year, to bring it into still closer connection with the public schools of the State, and in connection with them to afford to all the youth of either sex ample facilities for liberal education in literature, science and the industrial arts, and for the professional studies.

Through the aid received from the United States and from the State of Arkansas, the University is enabled to offer free tuition, except in the study of medicine, and thus to open wide her doors to all seekers of learning.

LOCATION.

The University, except its Medical College, and Branch Normal College, is located at Fayetteville, Washington County, in Northwest Arkansas, among the Ozark Mountains, and is more than sixteen hundred feet above the sea level. The location is thought to be unsurpassed by any other locality in the State in salubrity of climate, beauty of surrounding scenery, fertility of soil, variety and perfection of agricultural and horticultural productions, and in the morality and intelligence of its people.

Students may reach Fayetteville from both the north and the south by double daily trains on the Texas branch of the St. Louis & San Francisco Railroad, which now connects on the south with the Little Rock & Fort Smith Railroad at Van Buren.

ARRIVAL OF STUDENTS.

Students, on arriving at Fayetteville, must report at once to the President of the University. No student will be allowed to recite in any class until properly enrolled, but will be held responsible for his conduct from the time of his arrival in Fayetteville.

ORGANIZATION OF THE UNIVERSITY.

The following are the schools and courses:

I. AT FAYETTEVILLE.

1. The School of Agriculture.
 - (a.) The Experiment Station.
 - (b.) Farmer's Course.
2. The School of Mechanic Arts and Engineering.
 - (a.) Course in Mechanical Engineering.
 - (b.) Course in Civil Engineering.
 - (c.) Course in Electrical Engineering.
 - (d.) Manual Training Normal Course.
3. The School of Science.
 - (a.) Course in Chemistry.
 - (b.) Course in Entomology.
 - (c.) Course in Zoology.
 - (d.) Course in Botany.
 - (e.) Course in Horticulture.
4. The School of Liberal Arts.
 - (a.) Course in Arts.
 - (b.) Graduate Courses.
5. The Normal School.
 - (a.) Normal Course.
6. The University High School.
 - (a.) General Course.
 - (b.) Agricultural and Mechanical Course.

II. AT LITTLE ROCK.

7. The School of Medicine.
 - (a.) Course in Medicine.

III. AT PINE BLUFF.

8. Branch Normal College.
 - (a.) Normal Course.
 - (b.) Classical Course.
 - (c.) Mechanical Course.

REQUIRED, ELECTIVE AND OPTIONAL STUDIES.

Each student must have not less than fifteen hours per week of lectures, recitations and laboratory work; two and a half hours of laboratory work being considered equivalent to one

hour of recitation. When less than fifteen hours is mentioned for any class, the student must elect studies to supply the deficiency. Students of superior energy and mental capacity are allowed, with the consent of their professors, to take optional studies in addition to the required number of hours, but this privilege will be withdrawn if any study is not properly kept up.

SPECIAL STUDENTS.

Persons of mature years and judgment, who have passed the examinations for admission, are allowed to pursue irregular courses of study; but they must, in all cases, satisfy their professors that they are prepared for the work of the class they seek to enter.

TERM EXAMINATIONS.

At the close of each term examinations are held. In order to "pass," a student must obtain 75 per cent. in each subject.

Students who are unsuccessful in any subject of a term are reported by the professor as being "incomplete" or as "conditioned." "Incomplete" work may be made up at the convenience of the professor concerned; "conditions" may be made up within two terms. Conditions of any term that are not made up by the beginning of that term must be taken over in class.

THE LIBRARY.

During the past year great improvements have been made in the library. The book-room has been entirely refitted with new cases. These new cases are of walnut and pine, and are substantial and neat in appearance. They will accommodate 14,000 volumes, nearly three times the number the library now contains, and there is further room on the floor for two more cases, which will contain about 3000 volumes more. When the floor space is entirely occupied a second tier of shelves can be built upon those already made and access furnished to those by means of a gallery. This will about double the capacity of the library, and thus enable us to take care of 34,000 volumes or more.

The Reading-room has been furnished with new tables and chairs. Appropriations made at the December meeting of the Board of Trustees will enable us to supply the library with cases, cards, etc., for a card catalogue, a type-writer, pamphlet cases, improved newspaper-file holders, and other fittings for a modern library. Work upon the card catalogues has already been begun.

It has been thought best to change from the old system of classifying books by case, shelf and number, to what is known as relative classification. The old system is not adapted to a growing library, because the shelves are constantly becoming full, then new material on the same subject must either be placed in another part of the library, or books must be moved to allow the new books a place beside the old. This necessitates changing the case, shelf and book numbers, and all of these changes must be accompanied by corresponding changes in the printed or card catalogue. This is such expensive work that good catalogues are beyond the means of any but the wealthiest libraries. The new system gives to every book in the library a number which it is never necessary to change. Further, this number will cause every book to take its proper place in the library by the side of the book to which it is the most nearly related. For illustration, suppose the library contains a History of the Reign of Charles I, of England. Its number would be 942.062. If a History of the Reign of Cromwell should be received tomorrow, it would be numbered 942.064, and it would be placed next to Charles I, if there was no History of the Commonwealth. But the latter would always have a right to the number 942.063, and when it came to the library it would receive this number and be put between the two first-mentioned works. Finally, any work has the same number in all libraries which use the Dewey system, so that one index or catalogue serves for all. This index is furnished to all users of the system. It contains, at the present time, about 30,000 references. A few words of description will enable the reader to understand the essential features of the system: All topics are divided into ten class numbers, ranging

from 0 to 10, the first number, 0 including all works too general to go into any other class, such as newspapers, general cyclopedias, periodicals, etc. Each of these classes is subdivided into ten divisions, numbered as before, from 0 to 10. The first division, 0, includes all works of that class too general to go into any of the other nine divisions. To illustrate, 5 is the class number of Natural Sciences; then 5 followed by 0, *i. e.* 50, would include all works on Natural Sciences too general to go under any specific division, such as a Cyclopaedia of Natural Sciences. Each of these divisions is again subdivided into ten sections, 0, as before, representing the general section. Suppose, now, Loomis' Trigonometry is to be assigned a number. It belongs to Class 5 (Natural Sciences), Division 1 (Mathematics), Section 4 (Trigonometry). Its number, therefore, would be 514. All other Trigonometries would be similarly numbered; and, of course, since the library is arranged according to these numbers, they would stand together on the shelves. Moreover, since Geometries belong to the same class and division, but Section 3 instead of 4, they would be numbered 513, and would stand just before the Trigonometries, and Algebras would be numbered 512, Arithmetics 511, etc. Thus, the whole Library of Mathematics would be together, and it would not make any difference how much it grew, there is a place for every possible book on the subject. Every book has its place waiting for it. When books of a certain class overflow (and this must happen frequently in a growing library), the space allotted to them in the library can be re-arranged without changing a single label on a book or reference in a catalogue.

The library contains almost exactly 5000 volumes. With the liberal appropriations made by the Board its growth in the future will be rapid. The reading-room is furnished with the principal magazines and reviews, general and scientific, besides a large number of agricultural papers, and nearly all of the county papers published in Arkansas.

MUSEUMS.

The University has two museums, which are indispensable in furnishing materials for the illustration of scientific students and the industrial arts.

MUSEUM OF NATURAL HISTORY.

The cabinet of minerals consists of a collection of State minerals, contributed by various parties living in the State and by the professors; but it has recently been enlarged by purchase and exchanges and contains many valuable specimens.

There has been constructed an herbarium case large enough to hold the indigenous plants of North America and such exotics as are of economic value. It will be the work of years to complete a collection of the plants of North America, but the work is progressing; and the collection is large and valuable.

There are about 500 species of animals, illustrating the various branches of zoology.

Collections in all the departments are accumulating.

Contributions of minerals, fossils, Indian relics and rare curiosities are solicited.

INDUSTRIAL MUSEUM.

Among the facilities for instruction contained in the equipment of the University, may be mentioned:

A Dean steam pump with air chamber, water and steam cylinders and valve chambers sectioned, so that a student may see the working parts.

A Cameron steam pump with the steam cylinder sectioned.

A Blake steam pump in full working order.

Two small horizontal and one vertical steam engine made by the students in the shop.

A fire hydrant in working order.

Samples of articles of manufacture form a large part of the collection and are found to be of great service in acquainting students with the construction. Among these may be mentioned link belting, steam pipe covering, grease cups, injectors

in sections, water meters, insulated wire, lead cables and lubricating oils. Models of a large number of machines of various kinds are also in the collection.

LABORATORIES.

In the laboratories of the University opportunities are afforded for practical instruction in chemistry, mineralogy, physics, botany, zoology, entomology, horticulture and civil, mechanical and electrical engineering.

CHEMICAL LABORATORY.

The chemical laboratories are well supplied with apparatus and have accommodations for twenty students in qualitative and quantitative analysis, and twenty-two students in general chemistry. The appliances are of the latest design, gas and water at every desk, and all requisites for chemical work.

MINERALOGICAL LABORATORY.

This laboratory has work benches for eight students, and is supplied with all requisites for blow-pipe work and the general examination and assaying of minerals.

PHYSICAL LABORATORY.

The new physical laboratory will accommodate twenty-eight students. It is fitted with a small dynamo and a fair supply of general apparatus for work in practical physics.

BIOLOGICAL LABORATORY.

The biological laboratory has one room devoted to zoology and one to botany. The former has an aquarium for the preservation of material for zoology classes. Breeding cages, drying boards, and all the apparatus needed for the mounting and preservation of insects. The latter has all the apparatus useful for the collection and preservation of plants. Both have microscopes, microtomes, microscopic and chemical reagents, water, gas, and a fair amount of apparatus for experimental physiology.

ENGINEERING LABORATORIES.

Shops.—The shop building, erected in the spring of 1889, is of corrugated iron, 170 feet long, 40 feet wide, one story in height, well lighted and ventilated. The wood shop is 40x60 feet in size, the machine shop 40x40 feet, the forge shop 40x25 feet, and the foundry 40x45 feet.

The Wood-Working Shop, is equipped with eighteen well appointed work benches with tools, seven turning lathes, one pattern maker's lathe, one double circular saw, one scroll saw, one band saw, one reversible shaping machine, one planing machine, one steam glue heater and one trimmer.

The Equipment of the Forging Shop at present consists of nine forges of the most improved design, nine anvils and nine sets of tools, consisting of hand-hammer, tongs, calipers, steel rule, steel square, hot and cold cutters, file, flutter, fullers, swedges, punches, heading tools, etc. The forges are supplied with power blast, a No. 6 Buffalo blower serving for this purpose. This shop has also a double emery grinder and a blacksmith's post drill.

The Moulding-Room and Foundry are equipped with a Colliau cupola which will melt from 200 pounds to one ton of iron at once, one brass furnace, one core oven, nine sand troughs and moulder's benches combined, nine sets of moulder's tools, consisting of heart and square trowel, slickers, rammers, riddle, flask, swab, water pot, shovel, lifters, drawer, spikes, etc., six ladles from 100 to 5 pounds capacity, an assortment of flasks, and other necessaries for a complete foundry.

The Equipment of the Machine Shop consists of thirteen work benches with vises, sets of tools and closets, one 12-inch engine lathe, three 14-inch engine lathes, one 19-inch engine lathe, one speed lathe, one planer 24x24x72 inches, one planer 10x10x24 inches, one Universal milling machine (B. & S.), one double-wheel emery grinding machine, one Universal cutter grinder, one drill press, one grinding stone, and chucks and other appliances for use on the lathes, planers, etc. Each machine has its distinct set of tools. This shop is well equipped

with hammers, steel rules, steel squares, spring dividers, chisels, twist drills, taps, dies, tap wrenches, die stocks, reamers, pipe dies, files of all sizes and shapes, wrenches, arbors, lathe-dogs, squares, scales, calipers (inside and outside), machine and hand-cutting tools, a surface gauge, a surface plate, a Victor micrometer caliper, a set of caliper gaugers, a protractor and many other tools. The machinery is driven by a 25-horse-power Westinghouse engine.

Capacity of Shops.—Seventy-five students can be accommodated in the shops at one time, divided among the rooms as follows:

Wood-working Room	24
Metal-working Room	18
Forging Room	9
Foundry	20
Tool Room	1
Engine and Boiler Rooms	8

The Boiler Room contains two horizontal flue tubular boilers set in brick work, aggregating 60-horse power. These are used for heating the main building and running the shops. This room also contains a pressure-reducing valve, an automatic heater trap and governor, Blake pump, feed water heater, Hancock inspirator, gauges and other necessary appliances.

Drawing.—The room in the main building set apart for drawing is 60x70 feet in size, well lighted from three sides and well ventilated. The equipment includes the usual tables and stools, and among the special apparatus and instruments may be mentioned the planimeter, pantograph, blue-print frame, traverse table, odontograph, slide rule, sets of railroad and machine curves, roof pitches, etc. Materials are kept on hand and supplied to students at catalogue rates. Drawing instruments are purchased for students at a discount.

Surveying.—For the work in railroad, land and city surveying, the equipment furnishes chains, tapes, plumb bobs a Locke level, aneroid barometer, sextant, Y level, transits with solar attachment, plane table, etc. Not the least valuable part of the equipment is a surrounding country which offers problems in most of the varieties of work which meet the practical surveyor.

The engine used to run the shops is also used to furnish practice in measurement of power from indicator cards and the Prony brake; and the boilers generating steam for heating and power, also furnish practice in determining the amount of steam made for each pound of coal burned. The quality of steam is also tested by a calorimeter constructed by students. A feed pump and an injector are so arranged to feed the boilers that comparative trials may be made.

During the session of 1892, a Riehle testing machine, capable of exerting a pull or pressure of 60,000 pounds, will be installed and used in experimental work upon the materials used in buildings, bridges and machinery, and a 2000 pound cement testing machine will be used to determine the tensile strength of various cements, and their resistance to crushing.

The 180-light dynamo and the 10-horse power motor already secured, supply power to run the machinery of the laboratory and current for lighting the buildings, and for laboratory work. A storage battery, capable of supplying current at 110 volts for forty or fifty incandescent lamps of sixteen-candle power will be used for laboratory work. Instruments for electrical measurement are also provided for.

LITERARY SOCIETIES.

The students literary societies, three in number, meet weekly in their respective halls, and their members enjoy the advantages of debate and other literary exercises, thus acquiring general culture and becoming familiar with the popular modes of conducting business in deliberative assemblies. These societies occasionally give public entertainments, and much interest is manifested.

AIDS TO MORAL AND RELIGIOUS INSTRUCTION.

Religious exercises are held regularly in the University Chapel at the beginning of each daily session. Students are required to attend.

The literary societies, which have a large membership, have held regular meetings, and have maintained a reading room in the University dormitory.

The churches of Fayetteville cordially welcome the students to their Sunday-schools and various meetings for prayer and religious instruction. The denominations represented in the city are Baptist, Presbyterian, Cumberland Presbyterian, Methodist, Protestant Episcopal, Christian and Roman Catholic. Many of the students are actively engaged in the work of the different church societies and guilds.

SALE OF ARDENT SPIRITS NEAR THE ARKANSAS INDUSTRIAL UNIVERSITY.

By an act of the General Assembly of the State of Arkansas, approved March 6, 1875, it is unlawful for any person to sell or give any vinous or ardent spirits within three miles of the Arkansas Industrial University, unless it be prescribed by a regular practicing physician for medicinal purposes.

EXPENSES.

Matriculation, charged all new students.....	\$ 5 00
Tuition per session, charged all except beneficiary students.....	10 00
Music fees (see music, page 65).	
Furniture for dormitory students, at cost, usually about	15 00
Board in dormitory at cost, per month, from ..	\$ 7 00 to 8 00
Board in private families, per month, from	12 00 to 15 00
Uniform suit, purchased by student, from	13 00 to 17 50
Washing, per month, about.....	1 00

Students leaving the University frequently sell their furniture at a small reduction.

Rooms in the University dormitory are free, but occupants provide their furniture, fuel and lights. If there are not rooms enough for all, preference is given to Arkansas students. An officer of the University lives in the building and superintends it.

Students boarding elsewhere are under the supervision of the President of the University and are allowed to board only at places approved by him.

BOARDING FOR YOUNG LADIES.

There is at present no special residence for girls. They are assisted in finding board in respectable families; but the Faculty is not so situated as to exercise constant supervision over them out of college hours. Parents at a distance who send a daughter to the University, should therefore be well satisfied as to her discretion, or else should place her under control of the family with whom she boards.

STUDENT LABOR.

Able-bodied male students of the Freshman class are required by law to perform ten hours' manual labor per week, either on the experimental farm or in the shops or laboratories. For farm or shop work they are paid from 3 to 10 cents per hour, according to their diligence. Some students meet their expenses by this and other labor.

CONDITIONS OF ADMISSION INTO THE UNIVERSITY.

All applicants for admission into the University must, if required, furnish evidence of good moral character.

Dismissed, or expelled students, from other institutions of recognized standing, may be refused admission to this University.

LIST OF SUBJECTS PREPARATORY FOR THE FRESHMAN CLASS.

1. *English.* Meiklejohn's English Grammar with analysis or a full equivalent; a composition of 200 to 300 words, correct in spelling, punctuation, paragraphing and grammar, upon a subject announced at the time of the examination. In 1893 the subject will be taken from Irving's Sketch Book or from Shakespeare's Julius Cæsar.

2. *Arithmetic.* The examination will be taken from Wentworth's Grammar School Arithmetic, the whole of which is required. Teachers preparing candidates for entrance should, in teaching arithmetic, require them to analyze every example capable of analysis, or give a thorough course in Mental Arith-

metic. Students who are not quick at analysis in Arithmetic usually make poor progress in higher mathematics.

3. *Algebra* to Quadratic Equations, involving two unknown qualities, with special attention to factoring, the theory of exponents and radicals. The examination will be taken from Robinson's University Algebra.

4. *Plane Geometry*. In 1893 candidates will be examined in first five books of Wentworth's Geometry.

5. *History*. The examination will be taken from Eggleston's History of the United States, but Barnes' History complete will give the required preparation.

6. *Geography*. Any complete manual, such as Harper's or Maury's, will give the preparation, if thoroughly mastered. Special attention is given to the geography of the United States and of Arkansas.

7. *Latin*. Jones' First Lessons in Latin complete, with all its references to Gildersleeve's Latin Grammar; Cæsar's Gallic War, two books, with questions on the implied grammar and on the subject matter, military equipment, etc. Kelsey's Cæsar or Greenough's Cæsar is recommended. In 1893 three books will be required, and in 1894 four books.

8. *Physiology*. In 1893 candidates will be examined in Martin's Human Body, briefer course.

Candidates for the higher classes, or for the Freshman Class after beginning of session, will be examined also in subjects passed over by the class.

SPECIMEN EXAMINATIONS FOR FRESHMAN CLASS

Examinations will be of the same general character as the following:

I. MEIKLEJOHN'S ENGLISH GRAMMAR. 2 hours.

1. Tell all the different ways of distinguishing gender; illustrate each by example.

2. Name and define all the different kinds of pronouns.

3. Give distinction between strong (or irregular) and weak (or regular) verbs, and principal parts of one strong verb and of one weak verb. Give a complete synopsis of the verb *know* in the passive voice, using the third person singular.

4 A. I. U.

4. Analyze carefully the following sentence, giving special attention to the relation of the subordinate clause to the principal clause: "The love of reading, *which Gibbon declared* he would not exchange for all the treasures of India, was, with Macaulay, a main *element* of happiness in one of the happiest lives *that it has ever fallen to the lot of the biographer to record.*"

5. Parse the words italicized in the above sentence. Construe the words italicized in the following sentence: (1.) They offered *Cesar* the crown three *times*.

6. Name the prefixes and suffixes in the following words and tell what force they have. (1) Steward, (2) gainsay, (3) golden, (4) weakness, (5) forbid, (6) stagger, (7) misdeed, (8) trickster, (9) sparkle, (10) withstand.

II. ENGLISH COMPOSITION. 1 hour.

Write a composition of 200 to 300 words upon "The Necessity of an Education."

III. ARITHMETIC. 2 hours.

First, second, third, fourth and fifth questions same as in examination for admission to High School.

6. See Wentworth's Arithmetic, page 236, example 9.

7. See Wentworth's Arithmetic, page 261, example 5.

IV. ALGEBRA. 2 hours.

1. Simplify the following expressions by removing the parentheses and collecting like terms:

$$(a) a - [b + \{ a - (d + a) \}] \\ (b) -[5x - (11y - 3x)] - (5y - (3x - 6y))$$

2. Resolve the following into factors:

$$x^3 + y^3, x^4 - y^4, x^2 - 19x + 90, 240 + x - x^2, \text{ and } x^3 - 8.$$

3. Find the greatest common divisor of—

$$8x^3 - 2x^2 - 53x - 39 \text{ and } 4x^3 - 3x^2 - 24x - 9.$$

4. Given: $2x + 3y + 4z = 20$.

$$3x + 4y + 5z = 26.$$

$$3x + 5y + 6z = 31.$$

To find the values of x, y, z.

5. Find the cube root of—

$$1 - 9x + 39x^2 - 99x^3 + 156x^4 - 144x^5 + 64x^6.$$

6. Find the value of—

$$(\sqrt{7} + 5\sqrt{3})(2\sqrt{7} - 5\sqrt{3});$$

and the value of x in

$$14 - \sqrt{x} - 3a = 6, \text{ and}$$

$$x^2 - 6x = 27.$$

V. PLANE GEOMETRY, 2 hours.

Demonstrate the following propositions:

1. The three perpendiculars from the middle points of the sides of a triangle meet in the same point.

2. An inscribed angle is measured by one-half of its intercepted arc.
3. Two regular polygons of the same number of sides may be constructed, the one circumscribed about a circle and the other inscribed within it, which shall differ from each other by less than any given surface.
4. What is the length of the side of a regular decagon inscribed in a circle whose diameter is 12?
5. Problem: To divide a given straight line into parts proportional to given straight lines.

VIII. LATIN. 2 hours.

Translate Cesar's Gallic War, book I, chapter 22, from *Prima luce* to *abstinebat*.

1. Give principal parts of *abesset, accurrit, teneri, cognovisse, instruit.*
2. Explain cases of *luce, equo, quem, ei, tempore.*
3. Explain uses of modes in *teneretur, teneri, fieret.*
4. Compare *prima, summus, proximum, longius.*
5. Give the whole indicative mode of *voluerit*, and the whole subjunctive of *abesset*, and translate the first person of each tense.
6. Decline *passibus, eum, quem, insignibus, uno.*
7. Parse *hostium, occupari.*

Translate Book II, chapter 32, from *ad hæc* to *dixerunt.*

Translate into Latin:

1. He will order the lieutenant to send soldiers as a relief to our men.
2. We are so many in number that we can easily keep their army from the march.
3. If they make peace with us, we shall go into that part where they wish us to be.
4. We cannot see the mountain, although it is of great height.
5. We shall march, through Geneva at sunset, because we are not more than twenty miles distant.

Besides this an oral examination is required.

VI. U. S. HISTORY. 1½ hours.

Tell all about the following:

1. De Soto.
2. The Battle of Guilford Court House.
3. The Missouri Compromise.
4. The Doctrine of States' Rights.

VII. GEOGRAPHY. 1½ hours.

1. Name in their order twenty rivers flowing into the Atlantic Ocean or its arms between the Bay of Fundy and the Florida Keys.
2. Name the principal cities of Louisiana, Texas, Ohio, Illinois, Michigan and Minnesota (one city each), and describe their situation.
3. Describe the climate and productions of Mexico.
- 4 and 5. What and where are the following? Give exact location: Aconcagua Aral, Baikal, Bothnia, Ceylon, Delhi, Farewell, Formosa, Hecla, Munich, Ponchartrain, Sunda, Verde, Volga, Yukon.

IX. PHYSIOLOGY. 1 hour.

1. Describe the structure of the femur.
2. How does the blood-plasma differ from blood-serum?
3. Describe the formation of a blood clot.
4. Define the terms "afferent," "efferent," "voluntary," "involuntary," "reflex."
5. Name and give the most important characteristics of eight of the principal tissues of the body.

LOCAL EXAMINATION.

Students living more than a hundred miles from the University may, by making satisfactory arrangements, obtain special local examinations two weeks before the beginning of each term. The questions will be sent to any principal of a school or county superintendent who will supervise the examination for the candidate, provided such officer makes his application in time. Such application must reach the University as early as February 1st for admission for first term, May 1st for second term and August 1st for third term. The questions must be submitted by the superintendent or principal to the candidate under the usual restrictions of a written examination, and the questions and answers must be returned by the same officer to the University with his indorsement that the examination has been properly made. Candidates should in all cases return only fair and honest answers; otherwise they will be seriously embarrassed in their future courses. The candidate must secure the consent of the principal or superintendent who is to hold the examination.

ADMISSIONS UPON ACCREDITED CERTIFICATES.

Accredited Schools.—Any high school or academy whose course of instruction covers all the branches requisite for admission to the University, may be placed upon the accredited list of preparatory schools. Upon application from the principal of any high school or academy, an officer of the University will be sent as soon as possible to examine the course of study and methods of teaching. If his report is favorable, the school will be placed upon the accredited list and its graduates will be admitted to the Freshman Class without examination. Students of accredited schools who may not be grade-

uates, will be excused from examination on subjects required for admission into the University, upon certificates of proficiency in such studies from the principal. A school once placed upon the accredited list will remain there until its administration is changed or until a notification that the work is unsatisfactory is received from the University. Upon a change of administration, an application to be continued upon the list of accredited schools should be forwarded to the University. Such request may be granted without a new examination if the authorities can assure themselves that no prejudicial changes in the courses of study or in the thoroughness of instruction will be made.

The University will do all in its power to bring about that close and cordial relation which should bind together the various branches of the common school system.

APPOINTMENT OF BENEFICIARIES.

All appointments shall be completed, if possible, before the opening of the Spring term. The County Judges make the appointments and send them according to the directions below. If the appointee fails to appear at the University within twenty days after an appointment (except in case of sickness), he or she will be regarded as having declined the appointment, in which case it will be the duty of the President of the Faculty to notify the person making the appointment of such failure, and he, in turn, should make another appointment as soon thereafter as possible. The President of the Faculty shall continue to notify appointing officers until their respective number of appointees make their appearance at the University.

All the beneficiary students should be present at the opening of the Spring term, and unnecessary delay will lead to the forfeiture of their appointments.

QUALIFICATIONS.

The attention of County Judges is called to the fact that *no beneficiary students will be admitted unless they have the following qualifications:*

Students are not admitted until they have become familiar

with the fundamental principles of arithmetic as far as percentage. In reading, they must be able to understand and intelligently render specimens of the grade of the Fifth Reader, must have a good knowledge of elementary English grammar, geography, and the spelling of all words of the grade of the Fifth Reader. These qualifications are the test of admission at the beginning of the session; those applying later will be admitted only on the grade of the class. (See admission to High School, page 82.)

FORMS OF APPOINTMENT.

Students who have been appointed beneficiaries must bring evidence of appointment in the following forms of notice, to be sent by the Judge of the County Court, in accordance with the sixth section of an act approved March 6, 1875:

No [Form 1—Appointment.]
To whom it may concern:
 I hereby appoint of County,
 State of Arkansas, as a beneficiary to the Arkansas Industrial University.
 Given under my hand this day of 189..

Send a notice like the following to the President of the University, and one to the Secretary of the Board of Trustees, at Fayetteville:

[Form 2—Notice to President of University.]
 To the University: Arkansas. }
 I hereby notify you that I have this day appointed of County, State of Arkansas, a beneficiary to the Arkansas Industrial University.
 Given under my hand this day of 189..

NUMBER OF BENEFICIARIES.

The number of beneficiaries is limited to one thousand, distributed to the counties of the State in proportion to the population of 1880, and in every case in which a county fails to supply its quota of beneficiaries, the Governor is authorized to appoint such beneficiaries to the full number authorized by law; *Provided*, That such appointment may be vacated on an application from a county so failing to fill its quota, but may be resupplied from some other county whose quota has not been filled:

COUNTIES.	Beneficiaries	COUNTIES.	Beneficiaries
Arkansas	10	Lee,	16
Ashley	13	Lincoln	12
Baxter	7	Little River	6
Benton	24	Lyon	19
Benton	15	Limestone	15
Bradley	8	Madison	15
Cathoun	7	Marion	10
Carroll	16	Mitler	12
Clark	12	Mississippi	9
Clark	13	Morgan	12
Cleburne	15	Montgomery	7
Cleveland	8	Nevada	17
Columbia	10	Newton	6
Conway	19	Ouachita	15
Craighead	16	Perry	6
Crawford	8	Phillips	28
Crittenden	11	Pike	3
Cross	6	Poinsett	7
Dallas	9	Polk	3
Desho	11	Pope	19
Drew	15	Prairie	19
Faulkner	17	Pulaski	15
Franklin	18	Randolph	12
Fulton	8	Saline	11
Garland	11	Scott	19
Grant	8	Searcy	7
Greene	9	Sebastian	28
Hempstead	24	Sevier	8
Hot Spring	10	Sharp	12
Howard	12	Stone	8
Independence	21	St Francis	10
Izard	14	Union	16
Jackson	15	Van Buren	11
Jefferson	29	Washington	30
Johnson	15	White	21
Lafayette	6	Woodruff	12
Lawrence	10	Yell	18

There is also one "Honorary Scholarship" to each county, to be elected for superior merit and proficiency, from the public schools of each county, according to section 2 of act of July 23, 1868.

ABSENCES.

Absences from the University during the session are not permitted except for reasons of importance. The parent has, at all times, the right to withdraw his son entirely and finally, without reason assigned; but without so withdrawing him he cannot relieve him of the obligation to attend on his duties at the University. The incidental absences of students during the session are exceedingly disadvantageous, both to themselves and the University. While, therefore, the Faculty permit them, in cases where propriety or urgent necessity seems to make

them unavoidable, they hold it to be a duty to inquire into the reasons for which the permission is solicited.

No absences are permitted during the summer term for reasons that would not be valid at other times.

WITHDRAWAL OF STUDENTS.

Parents or guardians who wish to withdraw their children or wards from the University should write to the President of the Faculty, stating their wishes. No honorable discharge will be given to a student under age who is unable to produce the written application of his parent or guardian for his withdrawal, or if his number of demerits shall exceed the proportion of two hundred allowed during the session. Nor will an honorable discharge be given to a student under censure of any kind, whether for neglect of duty or other cause, even though he may have the consent of his parent or guardian for his withdrawal from the University.

DEPARTMENTS OF INSTRUCTION.

The arrangement of elective courses enables students to concentrate their work upon special lines or subjects, and each student is expected to complete the undergraduate studies of at least one language or science. The following rules for elective studies will be observed:

1. No study can be elected, unless the professor in charge deems the student prepared to pursue it.
2. No elective study shall be changed before the end of the term.
3. No professor shall be required to teach an elective course, unless three or more students pursue it.

DEPARTMENT OF PSYCHOLOGY AND ETHICS.

E. H. MURFEE, Professor.

These studies are taught inductively, no theory or doctrine being urged for acceptance which is not based upon a philosophical induction. The student is taught to subject every statement of fact or principle to the test of his own experience. The fullest and freest discussion of opposing views is encouraged. Recent researches in Physiological Psychology receive special attention.

I. *Psychology (Senior.)*

Three times a week for the first and second terms, twice a week for the third term. Ladd, McCosh, Bascom, Mahan, Porter, Sir William Hamilton.

II. *Ethics (Senior.)*

Once a week for two terms and twice a week for the third term. Dagg, Alexander, Bascom, Porter, Calderwood.

DEPARTMENT OF AGRICULTURE.

A. E. MENKE, Professor.

I. (a) *Veterinary Anatomy.*

Lectures and laboratory work. First term, five times a week.

(b.) *Veterinary Science.*Second term, *three times a week.* Third term, *twice a week.*(c.) *Agriculture.*Second term, *twice a week.* First term, *once a week.*II. (a.) *Horticulture (Sophomore).*First term, *four times a week.*(b.) *Dairy Husbandry (Sophomore).*Second and third terms, *four times a week.*(c.) *Stock-Breeding (Sophomore).*Throughout the year, *three times a week.*

DEPARTMENT OF ENGINEERING.

C. V. KERR, Professor of Mechanical Engineering.

G. C. SCHOFF, Adjunct Professor of Civil Engineering.

H. B. SMITH, Adjunct Professor of Electrical Engineering.

S. L. GRINSTEAD, Instructor in Wood Working.

WILLIAM M. GILMORE, Instructor in Forge and Foundry.

MACK MARTIN, Instructor in Machine Shop.

W. FRENCH, Engineer.

I. *Wood Working.*Principles of carpentry and joinery; wood turning; pattern making, cabinet work. *One year's course, recitations, lectures and shop work.*II. (a.) *Founding.*Moulding; melting and pouring brass and iron; management of cupola. *Half year's course, recitations, lectures and shop work.*(b.) *Forging:* Management of fire; drawing; welding, riveting; tempering. *Half year's course, recitations, lectures and shop work.*III. *Machinist Work.*Chipping and filing; turning; planing; milling; drilling; grinding; metal fitting and erection of machinery; millwrighting; care of engines and boilers. *One year's course, recitations, lectures and shop work.*

IV.

As a one year's course during the fourth year of the manual training course, the student may select one of the following:

(a.) *Carpentry and cabinet-making.*(b.) *Pattern making and founding.*

- (c.) Blacksmithing.
- (d.) Machine shop work.
- (e.) Management of boilers, engines, dynamos and electric light plants.
- (f.) Actual work of instructing classes in the different shops and in laying out series of exercises.

V.

Drawing.

Selection and use of instruments; lettering; geometrical construction; tracing and blue printing; descriptive geometry and its application; design of machines, steam engines, boilers, etc. *Six years' course.*

VI.

Elements of Mechanism, Machinery and Mill Work.

Theory of motion and velocity ratios; designs of gear wheels, cams, link motions; alignment of shafting; transmission of power by belts, hemp and wire ropes; theory of friction; selection and use of lubricants. *One year's course.*

VII.

Mechanics.

Elementary and analytical treatment of statics and dynamics; resistance of materials; graphical statics; hydraulics; turbines. *One and a half years' course.*

VIII.

Steam Engineering.

- (1.) *The stationary engine:* Principles of construction and operation; study of existing types, vertical and horizontal, high-speed and Corliss engines.
- (2.) *Pumps:* Different types; boiler feed pumps, pulsometers, injectors; pumping engines.
- (3.) *Boilers:* Construction and management; fuel; chimney draft; types, tubular, water tube, sectional; valves and fittings.
- (4.) *Locomotive engines:* Construction and management; study of forms adapted to different service; link motions; air brake; train resistance.
- (5.) *Valve gears and governors:* Slide valves; Zeuner's diagrams; movement of valves by eccentric and links; theory, construction and adjustment of throttling, pendulum and shaft governors; balance of reciprocating parts.
- (6.) *Theory of compound engines:* Source of economy; principles of design; distribution of power. *Two years' course.*

IX.

Masonry Construction.

Materials; stone and brick masonry foundations. *One term's course.*

X.

Thermodynamics.

Action of heat on perfect and imperfect gases; hot air, gas and steam engines, injectors; mechanical refrigeration, manufacture of ice. *One year's course.*

XI.

Engineering Laboratory.

Tests of strength and other properties of materials of construction; measurement of friction of belts, gears and lubricants; measurement of power by indicator, brake and dynamometer; boiler tests to determine evaporation of water per pound of fuel. *One year's course.*

XII.

Power Plants.

- (1.) Study of steam and water power plants as illustrated by the best practice; specifications.
- (2.) Study of most approved methods of testing steam and gas engines, turbines, refrigerating machinery, etc. *Two terms' course.*

XIII

Surveying.

- (1.) Care, use and adjustment of instruments; use of chain, tape, compass, transit, solar attachment, level, sextant and plane table; exercises in land, city and mining surveying.
- (2.) *Railroad Surveying:* Reconnaissance, preliminary survey, location, profiling, establishing grade, location of curves and turnouts; measurement of embankments and cuts, estimates of volume and material used in construction; location and estimates for tunnels.
- (3.) *Hydraulic and sanitary surveying:* Location of waterworks, with details of estimates of cost; design and estimate of material required and cost of construction for a complete sewerage system. *Three years' course.*

XIV.

Bridges and Roofs.

Analytical and graphical treatment of different forms used for bridges, highways and depots; designs. *One year's course.*

XV.

Sanitary and Hydraulic Engineering.

- (1.) Study of the separate and combined systems of sewerage; constructive details; designs of a sewerage system.
- (2.) Location and constructive details of waterworks; standpipes, dams, pumping machinery; design of waterworks. *One year's course.*

XVI.

Engineering Structures.

Study of recent structures, bridges, foundations and tunnels ; use of coffer dams, caissons and jetties; specifications.
One term's course.

XVII.

Electricity and Magnetism.

Theory of electricity and magnetism ; measurement of resistance, electro-motive force, current ; use and calibration of instruments ; batteries, electro-magnets, etc. *One year's course.*

XVIII.

Dynamo-Electric Machinery.

- (1.) *Dynamo*: Open and closed coil, direct and alternating current, series, shunt and compound wound ; characteristic curves ; arc and incandescent lamps.
- (2.) *Motors*: Series and shunt wound, direct and alternating current ; stationary and street-car types.
- (3.) *Storage Batteries*: Chemical action in the cell ; construction and use.

XIX.

(4.) *Electric Transmission of Energy.*

Study of the distribution of electricity ; plans and calculations for systems of wiring. *One year's course.*

XX.

Electric Light and Power Plants.

- (1.) Study of recent electric light and street railway plants ; specifications.
- (2.) Study of approved methods of testing the efficiency of light and power plants. *One term's course.*

XXI.

Law.

Study of patent law and contracts. *One term's course.*

XXII.

Thesis.

Original work, planned and executed by the students ; subject chosen must be covered by previous work and approved by the instructor. *One term's work.*

DEPARTMENT OF CHEMISTRY AND PHYSICS.

A. E. MENKE, Professor.

W. B. BENTLEY, Adjunct Professor.

I. (a.) *General Chemistry (Sophomore).*

Lectures and recitations three times a week first and second terms ; five times a week third term. Laboratory work two afternoons weekly throughout the year. Text books, Richter, Remsen, Fischer.

- (b.) *Chemical Philosophy (Sophomore).*
Lectures and recitations four times a week in the third term. Text books, Meyer, Tilden.
- (c.) *Organic Chemistry (Junior).*
Lectures and recitations three times a week throughout the year. Text book, Richter.
- (d.) *Analytical Chemistry (Junior).*
Lectures and recitations five times a week the first term.
Laboratory work in the afternoon according to course.
- (e.) *Technical Chemistry (Senior).*
Lectures and recitations three times a week throughout the year. Text books, Ost, Wagner.

II. (a.) *General Physics.*

Lectures and recitations four times a week throughout the year. Laboratory work, one afternoon per week.

(b.) *Heat (Sophomore).*

Lectures and recitations twice a week throughout the year.
Laboratory work one afternoon per week.

III. (a.) *Mineralogy (Junior).*

Recitations daily during the second term.

(b.) *Metallurgy (Senior).*

Lectures and recitations three times a week throughout the year. Text books, Bloxam, Bell, etc.

NOTE.—Afternoon work two to four days per week varying with the student's course throughout the year.

DEPARTMENT OF MATHEMATICS AND LOGIC.

O. C. GRAY, Professor.

G. W. DROKE, Adjunct Professor.

I. (a.) *Advanced Algebra (Freshman).*

Robinson's University Algebra. First term, five times a week.

(b.) *Geometry (Freshman).*

Wentworth's Geometry. Second term, four times a week.

(c.) *Trigonometry (Freshman).*

Schuyler's Trigonometry. Third term, four times a week.

- II. *Analytical Geometry and Calculus (Sophomore).*
Loomis's Analytical Geometry; Loomis's Calculus. *Year's Course, four times a week.*
- III. *Logic (Junior).*
Jevon-Hill's Logic. *First two terms, three times a week.*
- IV. *Descriptive Astronomy (Senior).*
Newcomb and Holden's Astronomy. *Third term, four times a week.*

BOOKS OF REFERENCE.—*Algebra*: Wentworth, Wells, Davies, Hill, Locke, Loomis, Todhunter, Bowzer and others. *Geometry*.—Schuyler, Loomis, Welch, Chauvenet, Davies, Bowzer, Hill, Locke and others. *Trigonometry*.—Wells, Wentworth, Olney, Loomis, Bowzer and others. *Analytical Geometry*.—Loomis, Olney, Todhunter, Davies, Robinson and others. *Calculus*.—Church, Byerly, Williamson, Davies, Robinson and others.

NOTE.—Logic is taught both from text-books and by lectures. Students are required to show its application in various scientific investigations. Essays from different authors are analyzed and discussed, with a view to the appreciation of sound reasoning and detection of fallacies. Original discourses are required of students to impress the principles taught. In this way a subject, ordinarily regarded as dry, is made of the liveliest interest. *Text-books and Books of Reference*.—Jevon-Hill, McCosh, Mill and Hamilton.

DEPARTMENT OF BIOLOGY AND GEOLOGY.

J. F. MCNEILL, Professor.

S. E. MEEK, Adjunct Professor.

- I. *General Biology (Freshman).*
A study of typical species of plants and animals, with reference to structure, development and relationship. Lectures three times a week. Laboratory work six hours a week. *Throughout the year.*
- II. (a) *Morphology and Classification of Flowering Plants.*
Lectures three times a week. Laboratory work four hours a week. *Throughout the year.*
- (b) *Cryptogamic Botany.*
Lectures three times a week. Laboratory work four hours a week. *First term.*

(c.) *Physiological Botany.*

Lectures three times a week. Laboratory work four hours a week. *Second and third terms.*

(d.) *Advanced Botany.*

Reading and Laboratory work. *Throughout the year.*

III. (a.) *Systematic Zoology.*

Lectures three times a week. Laboratory work in the classification of birds, mammals, reptiles and fishes, four hours a week. *First and second terms.*

(b.) *Comparative Anatomy.*

Lectures three times a week. Laboratory work four hours a week. *Third term.*

(c.) *Histology.*

Lectures three times a week. Laboratory work four hours a week. *First and second terms.*

(d.) *Embryology.*

Lectures three times a week on general embryology. Laboratory work on the development of the chick, four hours a week. *Third term.*

(c.) *Advanced Zoology.*

Reading and laboratory work, eight hours a week. *Throughout the year.*

IV. (a.) *Structural Entomology.*

Lectures three times a week. Laboratory work four hours a week. *First term.*

(b.) *Systematic Entomology.*

Lectures three times a week. Laboratory work four hours a week. *Second and third terms.*

(c.) *Economic Entomology.*

Reading and laboratory and field work. *Throughout the year.*

V. (a.) *General Horticulture.*

Lectures three times a week. Laboratory and field work four hours a week. *Throughout the year.*

(b.) *Practical Horticulture.*

Reading and experimental work. *Throughout the year.*

VI. (a.) *Geology.*

Lectures three times a week. Laboratory and field work four hours a week. *Throughout the year.*

ENGLISH AND MODERN LANGUAGES.

R. H. WILLIS, Professor.

ELLA CARNALL, Adjunct Professor.

The subjects taught for undergraduates are the English (including Anglo-Saxon), German, French and Spanish languages and their histories and literature. Italian will also be taught for music students and others, when the demand is sufficient.

In the lower classes for each language the aim is to acquire a practical and accurate use of the language as it exists today; and the only proper basis for this is an exact knowledge of grammatical forms and of the elementary principles of syntax. In the higher classes the languages are studied historically and philologically with a view to general culture and to the best mental discipline.

Every student has the opportunity to become thoroughly acquainted with the English language, to learn to speak it and to write it correctly and forcibly. In the foreign languages the first and constant aim is a correct pronunciation and excellence in translation and composition; but the syntactical and etymological relations existing between these languages and the English are emphasized, and they are thus constantly contributing to the student's knowledge of English and to his power of expression. Besides the above instruction there will be in 1892, in each foreign language, additional recitations devoted wholly to conversation and sight reading.

Spanish takes the place of French for any beginning class which desires this substitution; but both these languages may be taught the same year, if there are as many as five students desiring to begin each in the Freshman class.

The following are the courses for 1892:

I. *Rhetoric and English Classics (Freshman).*

Raub's Rhetoric (two terms) and Macaulay's Essay on Milton (third term); twelve essays (chiefly narrative and descriptive) criticised and corrected by the instructor and copied by the student; thorough drill in English metres. For reference: Bain, Bardeen, Blair, Clark, Hart, Hill, Genung, Kames. *Three times a week.*

- II. *English and American Literature (Junior and Senior).*
- (a.) History of English and American Literature from earliest period to present day. Stopford Brooke's Primer with parallel reading of authors, and references to Taine, Morley, Shaw, Arnold, Minto, and others. *Once a week.*
 - (b.) English masterpieces read and critically studied; historical and critical essays. Kitchin's Spenser; Hale's Longer English Poems and Clarendon Press editions. *Twice a week.*
 - (c.) Chaucer and Shakespeare read and critically studied. Morris's Chaucer; Hudson's or Rolfe's Plays of Shakespeare; critical and historical essays. *Once a week.*
- III. *Early English and Philology (Senior and Graduate).*
- (a.) Anglo-Saxon and Middle English; Anglo-Saxon Grammar and readings from the Gospels and Chronicle; selections from Alfred, Ælfric, Caedmon, and from Beowulf and Judith; Sweet's Anglo-Saxon Primer and Sweet's Reader, or Bright's Reader; Morris's Selections from Middle English, Part I; Long's Early English Literature. For reference: Baskerville & Harrison's (or Bosworth's) Anglo-Saxon Dictionary; Cook's Siever's Grammar of Old English; Ten Brink's Old English Literature; March's Anglo-Saxon Grammar. *Three times a week.*
 - (b.) English Philology. Lounsbury's History of the English Language with references and lectures. For reference: Skeat's Etymological Dictionary, Earle, Whitney, Max Muller and Marsh. *Once a week.*
- IV. *Advanced Anglo-Saxon and English Philology (Graduate).*
- Cook's Siever's Grammar; March's Grammar; Critical Study of Alfred's Orosius, of Andreas, of Beowulf, of Caedmon's Genesis, and of Judith; Ten Brink's O. E. Literature; English Philology. For reference same as IV. *At the convenience of the professor.*
- V. *Gothic and Germanic Philology (Graduate).*
- Skeat's Gospel of St. Mark in Gothic with grammar; Balg's Translation of Braune's Gotische Grammatik; Heyne's Ulfila; Douse's Introduction to the Gothic of Ulfila; Balg's Comparative Glossary of Gothic. *At the professor's convenience.*

- VI. *Modern English Literature (Graduate).*
Critical study of the life and works of Scott, Byron, Burke, Carlyle, Thackeray, and Tennyson. *At the professor's convenience.*
- VII. *American Literature (Graduate).*
Critical study of the life and works of Irving, Poe, Longfellow, Emerson, Hawthorne, and Sidney Lanier. *At the professor's convenience.*
- VIII. *Modern German, Elementary (Junior).*
The Joynes-Meissner Grammar with composition; Brandt's Reader, containing selections from the simple prose of Grimm, Niebuhr, and other authors, and from the lyrics of Goethe, Schiller, Heine, Uhland and other poets; five lyric gems memorized; sight reading. *Four times a week.*
- IX. *Classic German (Senior).*
The critical study of German classics; Schiller's Maria Stuart; Lessing's Nathan der Weise; selections from the prose of Raumer and of Goethe, from Hermann and Dorothea and from Faust; grammar and composition continued; original composition; Conant's German Literature with references to Gostwick and Harrison's Literature and to other larger works. For reference: Whitney's and Brandt's Grammars; Heath's Dictionary. *Four times a week.*
- X. *German at Sight and German Conversation (Senior).*
Grimm's and Andersen's Maerchen; Hoffman's Tales from History; Schiller's Der Nesse als Onkel; Dreyspring's First Reader; Heness' Der Sprechlehrer. *Twice a week.*
- XI. *Graduate Courses in German.*
One of the following courses of one year each may be taken at the professor's convenience: (1) Life and works of Goethe, (2) of Schiller, (3) of Lessing, (4) Old and Middle High German, (5) Gothic and Comparative Philology.
- XII. *Modern French, Elementary (Freshman and Sophomore).*
Edgren's Grammar with composition; Super's Reader, containing simple prose tales and extended selections from Daudet, Dumas, Erckmann-Chatrian, Xavier De Maistre and a few lyrics from Victor Hugo, Beranger, Emile Souvestre and other poets; sight reading. *Four times a week.*

XIII.

Classic French (Sophomore).

The critical study of French classics: Corneille's *LeCid*; Racine's *Athalie*; Moliere's *Les Femmes Savantes*; grammar and composition continued; Saintsbury's Primer of French Literature with reference to his larger work. For reference: Whitney's Grammar; Harrison's French Syntax; Brachet's Historical Grammar; Heath's French Dictionary. *Four times a week.*

XIV.

French at Sight and French Conversation (Sophomore).

Easy modern French; Fenelon's *Telemaque*; Corneille's *Cinna*. *Twice a week.*

XV.

Graduate Courses in French.

One of the following courses of one year each may be taken at the professor's convenience: (1) Life and Works of Moliere, (2) of Corneille and Racine, (3) of Voltaire, (4) of Victor Hugo, (5) Old French.

XVI.

Modern Spanish, Elementary (Freshman)

Edgren's Spanish Grammar with composition; Worman's First and Second Spanish Books; Knapp's Spanish Readings, containing extracts from Fernan Caballero, Burgos, Castelar and other authors; sight reading. *Four times a week.*

XVII.

Classic Spanish (Sophomore).

The critical study of Spanish classics: Selections from Don Quixote; Lope's *La Estrella de Sevilla*; Calderon's *El Principe Constante*; Spanish Literature; grammar and composition continued. For reference: Knapp's Grammar; Becker's Spanish Idioms; Smith's Gramatica Practica de la Lengua Castellana; Sismondi's Literature; Seoane's Dictionary. *Four times a week.*

XVIII.

Italian.

Grandgent's Grammar with composition; Foresti's Reader; Manzoni's *I Promessi Sposi*; Tasso's *Gerusalemme Liberata*; Italian Literature. For reference: Cuore's Grammar; Sismondi's Literature; Baretti's Dictionary. *At the professor's convenience.*

DEPARTMENT OF ANCIENT LANGUAGES.

C. H. LEVERETT, Professor.

The subjects taught in this department are the Latin Language and Literature and the History of Rome, the Greek Language and Literature and the History of Greece. Authors are read in the order of their difficulty, and neat written translations are required at stated intervals. The grammar and idioms of these languages are carefully studied and compared with those of English and other languages.

Marked attention is paid to the rendering of English into Latin and Greek. In the lower classes the best manuals for Latin and Greek composition are used; for the higher classes carefully graded exercises are prepared by the professor.

Due prominence is given to the study of Latin and Greek metres and to sight-reading. The grammars are made the basis of this instruction, but fuller explanation is given in lectures.

I. (a.) *Cæsar (Freshman).*

Two books of Cæsar (Greenough), or thirty-five pages of Nepos (Chase and Stewart). *First term, four times a week.*

NOTE.—The Continental pronunciation of Latin used.

(b.) *Virgil's Æneid (Freshman).*

Two books of Virgil's Æneid (Greenough). *Second term, four times a week.*

(c.) *Virgil's Æneid and Eclogues (Freshman).*

One book of the Æneid and selections from the Eclogues. Smith's Smaller History of Rome. *Third term, four times a week.*

NOTE.—(1.) Gildersleeve's Grammar is used throughout the course in Latin.

(2.) Jones' Latin Prose Composition is used during the Freshman Sophomore and Junior years.

II. (a.) *Cicero's Orations (Sophomore).*

Fifty pages of Cicero's Orations (Harkness). *First term, four times a week.*

(b.) *Horace's Odes (Sophomore).*

MacLeane's Horace. Second term, four times a week.

(c.) *Livy (Sophomore).*

Fifty pages of Lincoln's Livy. Third term, four times a week.

III. (a.) *Livy (Junior).*

Sixty pages of Livy. First term, four times a week.

(b.) *Horace (Junior).*

Fifteen hundred lines of the Satires and Epistles of Horace. Second term, four times a week.

(c.) *Tacitus (Junior).*

One hundred pages of Tacitus. Third term, four times a week.

IV. (a.) *Cicero (Senior).*

The Moral Works of Cicero. First term, four times a week.

(b.) *Juvenal (Senior).*

Leverett's or MacLeane's Juvenal. Second term, four times a week.

(c.) *Roman Literature (Senior).*

Third term, four times a week.

NOTE.—(1.) Original exercises in Latin prose composition will be required throughout the year.

(2.) Other authors may occasionally be substituted for those above when a change seems beneficial: e.g., Sallust, Ovid, Catullus, Tibullus, Propertius, Pliny, Plautus, Terentius.

BOOKS OF REFERENCE—Harper's Latin-English Lexicon, White's English-Latin Lexicon, Classical Dictionary, Classical Atlas and Zumpt's, Madvig's and Roby's Latin Grammars.

V. *Graduate Courses in Latin.*

One or two of the following courses of one year each are offered to graduate students for 1892: (1) The complete works and the life of Virgil and Lucretius, (2) of Sallust and Tacitus, (3) of Livy, (4) of Catullus, Tibullus, Propertius and Ovid, (5) of Cicero, (6) of Terence, Plautus and early authors, (7) of Seneca and Quintilian, (8) of Suetonius and Pliny the Younger. With each of these courses there is collateral work in history, archæology, etc.

VI. (a.) *Greek (Freshman).*

Goodwin's Grammar, White's Lessons. *First term, four times a week.*

(b.) *Greek (Freshman).*

Goodwin's Grammar, White's Lessons. *Second term, four times a week.*

(c.) *Xenophon's Anabasis (Freshman).*

Six chapters of Xenophon's Anabasis, Goodwin. *Third term, four times a week.*

NOTE.—Goodwin's Grammar is used throughout this course.

VII (a.) *Xenophon's Anabasis and Prose Composition (Sophomore).*

One book of Xenophon's Anabasis. *First term, four times a week.*

(b.) *Xenophon's Anabasis (Sophomore).*

Two books of Xenophon's Anabasis. *Second term, four times a week.*

(c.) *Lysias and Grecian History (Sophomore).*

Three orations of Lysias and the History of Greece. *Third term, four times a week.*

NOTE.—Jones' Prose Composition is used throughout the Sophomore and Junior years.

VIII. (a.) *Herodotus (Junior).*

Forty pages of Herodotus (Mather). *First term, four times a week.*

(b.) *Homer's Iliad (Junior).*

Three books of Homer's Iliad (Pratt and Leaf). *Second term, four times a week.*

(c.) *Demosthenes, Plato (Junior).*

Forty pages of Demosthenes, selections from Plato. *Third term, four times a week.*

IX. (a.) *Thucydides (Senior).*

One book of Thucydides. *First term, four times a week.*

(b.) *Euripides, Sophocles (Senior).*

One play of Euripides, one play of Sophocles. *Second term, four times a week.*

(c.) *Sophocles, Greek Literature (Senior).*

One play of Sophocles, Greek Literature. *Third term, four times a week.*

NOTE.—(1.) Original exercises in Greek composition are required during the Senior year.

(2.) Other authors may be substituted for those given.

BOOKS OF REFERENCE.—Liddell and Scott's Greek-English Lexicon (7th Oxford Edition), Yonge's English-Greek Lexicon, Classical Dictionary, Classical Atlas, Goodwin's Moods and Tenses, Hadley's and Curtius' Grammars.

X.

Graduate Courses in Greek.

One or two of the following courses of one year each are offered to graduate students for 1892: (1) The life and complete works of (1) Sophocles and Æschylus, (2) of Euripides, (3) of Aristophanes, (4) of Homer, (5) of Herodotus and Thucydides, (6) of Demosthenes, (7) of Plato, one-half of his works; (8) of Aristotle, one-half of his works. With each of these courses there is collateral work in history, archaeology, etc.

DEPARTMENT OF HISTORY AND PEDAGOGICS.

J. F. HOWELL, Professor.

I.

History (Sophomore).

Myers' General History (two terms) and Montgomery's English History (third term) with helpfnl books for parallel reading; twelve historical essays (expository, argumentative or persuasive). For reference: The Student's series of Histories and the standard historians in the library. *Four times a week.*

II.

Advanced Ancient History (Graduate).

Smith's Ancient History of the East, Smith's History of Greece, Merivale's History of Rome, the Student's Gibbon.

III.

Advanced Modern History (Graduate).

Lodge's History of Modern Europe, Jervis' History of France, Green's Short History of the English People, Lewis' History of Germany.

IV.

Pedagogy (Freshman).

White's Pedagogy. *Twice a week.*

V.

School Management (Sophomore).

Baldwin's School Management. *First term, four times a week.*

VI.

History of Education (Sophomore).

Painter's History of Education. *Second term, three times a week.*

VII. *Science of Education (Sophomore).*

Palmer's Science of Education. *Third term, four times a week.*

VIII. *School Law (Sophomore).*

Lectures on General School Law, and the Organic School Law of Arkansas. *Third term, three times a week.*

NOTE.—The Normal course is accompanied throughout by notes and lectures. A considerable amount of collateral reading is required.

MILITARY DEPARTMENT.

ROBT. W. DOWDY, 1st Lieut. 17th U. S. Infantry,
Professor of Military Science and Tactics.

This department is in charge of the United States Army officer detailed by the War Department for duty at the Arkansas Industrial University.

The male students of the University are required to drill because the act of Congress appropriating lands to establish the University provides that the leading branches taught shall be "Military Science and Tactics," in addition to the usual course of study prescribed in universities.

The system of drill used closely follows that in the United States Army. It contains a course of gymnastic exercises for the development and improvement of the arms, chest, legs, hands and feet, which is unexcelled.

Besides being the perfection of physical training it has many advantages mentally. The necessity of being alert, listening for each word of command and acting promptly on it quickens the wit and cultivates the habit of fixing the attention and concentrating the thoughts. Thus the student is improved mentally and physically by every drill.

One hour per week is devoted to theoretical instruction in the art and science of war, and three hours per week to practical instruction in the school of the soldier, of the company and of the battalion, including such ceremonies as guard mounting, dress parade, etc.

The battalion of cadets consists of all the able-bodied cadets over the age of 15, and is officered by cadets selected for pro-

ficiency in drill and general good conduct. Two of the companies have recently been mustered into the service of the State as Companies "A" and "B," First Regiment Arkansas State Guards; but no cadet will be allowed to become a member of either of these companies of the State Guards if his parent or guardian objects.

A competitive drill is held yearly, and the successful company wins the honor of carrying the colors for the ensuing year. A gold medal offered for the best drilled cadet last year was won by Cadet J. F. Moore.

A neat uniform of gray cloth, with brass buttons and black trimmings is required to be worn at all drills. The suit complete costs from \$14 to \$18, and with ordinary care will last a year, being cheaper in the end than clothing ordinarily worn by students.

Parents will save money by postponing the purchase of suits for their sons until they arrive at Fayetteville.

IMPORTANT.

The three students of the Senior class having the highest grade of merit in this department will be reported to the Secretary of War, and by him reported in the Army and Navy Register for that year, preference being given to those so reported in selecting officers for vacancies in the United States Army.

Roster of officers and non-commissioned officers of the Arkansas Industrial University battalion, 1891:

Colonel.....	DeR. C. Cabell (1st Lieut., 8th U. S. Cavalry)
Adjutant.....	C. C. Patton
Sergeant Major.....	J. D. Arbuckle
Drum Major.....	A. J. Newman

COMPANY "A" (COLOR COMPANY).

Captain.....	S. A. Horton
First Lieutenant.....	S. F. Vaulx
Second Lieutenant.....	J. S. Pharr
Third Lieutenant.....	W. A. Crawford
First Sergeant.....	C. F. Armistead
Sergeant.....	I. G. Hedrick (Color Sergeant)
Sergeant.....	L. R. Ash

Sergeant.....	A. M. Vance
Sergeant.....	J. H. Moore
Corporal.....	J. C. Purdy
Corporal.....	J. O. Rawlings

COMPANY "B."

Captain.....	G. V. Skelton
First Lieutenant.....	H. B. Shreve
Second Lieutenant.....	A. C. Wood
Third Lieutenant.....	G. H. Kimball
First Sergeant.....	O. P. Brewer
Sergeant.....	C. E. Hall
Sergeant.....	J. F. Moore
Sergeant	H. Pharr
Sergeant.....	C. Hollis
Corporal.....	T. R. Spears
Corporal	C. A. Humphry

MUSICAL DEPARTMENT.

J. B. MARCHESELLI, *Director.*

PIANO FORTE.

FIRST GRADE.

Elementary lessons in notation reading, position of person and hands, and practical piano lessons.

First Book New England Conservatory Method, technical exercises, Diabelli's First Steps and Koehler's Op. 50 and 60.

SECOND GRADE.

Duvernoy's Ecole du Mechanism, Clementi's Sonatinas, Heller's Op. 46, and Czerny's School of Velocity.

THIRD GRADE.

Czerny's Op. 740, Bertini's Op. 29 and 32, Heller's Art of Phrasing, and Liebert and Stark's Third Book.

FOURTH GRADE.

Heller's Art of Phrasing, Moscheles' Op. 73, Bach's Inventions and Clementi's Gradus ad Parnassum.

FIFTH GRADE.

Bach's 48 Preludes and Fugues, Chopin's Op. 25, Berger's Op. 22, Cramar's Finishing Studies.

The study of Theory and Harmony begins with the second grade. Pupils will receive a certificate on the completion of each grade, and a diploma when the entire course is finished.

VOCAL.

FIRST GRADE.

For Soprano, Mezzo-Soprano and Tenor, Bassini's Art of Singing and Vocalization. For Contralto, Marchesi's Op. 5. For Bass and Baritone, Barker's Vocal Exercises.

SECOND GRADE.

For Soprano, Mezzo-Soprano and Tenor, Concone's Op. 9 and 11. For Bass, Lablache's Method, Parts III and IV. For Baritone, Marchesi's Op. 15. Classical selections are studied in this grade.

VIOLIN.

FIRST GRADE.

Henning's Practical School, Parts I and II, and Dancla's Op. 89.

SECOND GRADE.

David's Method, Part II, and studies in solo playing.

TERMS:

Twelve weeks—two lessons per week.

Vocal Culture	\$12 50
Piano-forte and Organ	12 00
Violin and other stringed instruments.....	12 00
Cornet and other brass instruments.....	12 00
Clarinet and Flute.....	12 00
Thorough Bass and Harmony.....	5 00
Use of Piano one hour every day.....	2 35

Tuition payable in advance.

No deduction will be made on account of absence from recitations except in case of prolonged sickness.

POST GRADUATE COURSES

REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS (M. A.)

Applicants for this degree must have previously taken the Degree of B. A., and in addition must take at the University, for a full scholastic year, four daily studies appointed by the Faculty, and submit a satisfactory thesis.

REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE (M. S.)

Applicants for this degree must have previously taken the Degree of B. S., and in addition must take at the University, for a full scholastic year, four daily studies appointed by the Faculty, and submit a satisfactory thesis.

REQUIREMENTS FOR THE DEGREE OF M. E. OR C. E.

The Degree of M. E. or C. E. will be given after three years to those graduates of the Mechanical or Civil Engineering courses, who by successful practice prove themselves worthy and submit a satisfactory thesis.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY. (PH. D.)

1. This degree will be conferred for distinguished attainments, as shown by examination and thesis, in any one of the five following languages: Latin, Greek, German, French and English, together with subordinate attainments in two others of the five; or for distinguished attainments in one principal, and two subordinate, of the following sciences: Chemistry, Physics, Geology, Biology; or for distinguished attainments in Philosophy, or in Pure and Applied Mathematics.

2. This degree shall be open to persons who have received the Degree of B. A. or B. S. at this or other reputable institutions.

3. No applicant shall be admitted to examination for this degree before two full scholastic years from the date of his

admission to the course shall have passed. The last of these two years must be passed by the candidate in resident study at the University.

4. Applicants for this degree must state in their application what particular line of study they wish to pursue.

5. A thesis of 2000 or more words showing original research shall be required of every applicant, the subject of which shall be announced and passed upon by a committee of the Faculty at least one year before the time set for the final examination, and the thesis itself must be presented to the committee two months before admission to the examination. Twenty-five copies of the approved and printed thesis shall be placed in the University library.

6. All applicants for this degree, who have previously taken the B. S. or M. S. Degree, must, by the end of the first year of the course, be sufficiently conversant with French and German to read with ease any scientific work written in these languages.

7. The fee for examination of applicants for the Degree of Ph. D. is \$35; for the M. A. or M. S. Degree, \$25, and for each Diploma, \$5. The thesis is printed at the expense of the candidate.

THE SCHOOL OF AGRICULTURE.

FACULTY.

A. E. MENKE, Professor of Chemistry.

JEROME MCNEIL, Professor of Biology and Geology.

O. C. GRAY, Professor of Mathematics.

R. W. DOWDY, Professor of Military Science and Tactics.

R. H. WILLIS, Professor of English.

W. B. BENTLEY, Adjunct Professor of Chemistry.

R. R. DINWIDDIE, Veterinarian of the Agricultural Experiment Station.

W. F. BATES, Foreman of the Farm.

J. M. MOORE, Assistant Foreman of the Farm.

(REQUIREMENTS FOR ADMISSION.)

(See Pages 36-40).

GENERAL STATEMENT.

The School of Agriculture is designed and organized to give both theoretical and practical instruction in the various

branches of agriculture. The farmers have realized that there is no art, profession or occupation which demands more careful study than agriculture; that special preparation is needed no less for the pursuit of agriculture than for law, medicine or divinity, and that proper provision should be made for teaching so important a subject in the State University. It is the policy of the present management to unite practice with theory, under the belief that in no other way beneficial results can be obtained. The equipments for practical work will compare favorably with those of any other successful agricultural college. The agricultural machinery on hand is of the newest and most approved pattern. In addition to the ordinary implements, we have a Victor manure spreader; rear-pressure shoe drill; Aspinwall potato planter, with corn and fertilizer attachments; disc harrow, etc. The use of all this machinery is to give the student an insight into labor-saving devices, with a view to their economic employment. We have two commodious barns that will accommodate forty-one head of stock, machinery, feed, etc. There has also been recently constructed a fine dairy and ice-house, built in accordance with tested plans. On the farm the student can become acquainted with the telling points of good stock, as he can see specimens of pure Devons, Holsteins, Sussex, Jerseys, Herefords, Galloways, grade Durhams, etc. We have a large vineyard and orchard for practical horticultural work. The students are interested in and do all the practical work that occurs on either a stock, dairy, fruit or cropped farm. The purely agricultural classes in the course are Agriculture, Horticulture, Stock Breeding, Stock Feeding, Agricultural Chemistry, Veterinary Anatomy, Veterinary Science, Dairying. The various closely-related branches are also provided for, as may be seen in the schedule. The following is a more detailed description of the instruction given in the different classes:

DAIRYING.

The new dairy has been fitted up with a Laval separator and all the most modern appliances. A specialty will be made of

this branch of agricultural science, and the attention of farmers is called to the desirability of their sons and daughters gaining all attainable information on this subject.

FARMER'S COURSE FOR CERTIFICATE IN AGRICULTURE.

FRESHMAN YEAR.

Biology, 3; Physics, 4; English, 3; Mathematics 5.

SOPHOMORE YEAR.

FIRST TERM.	SECOND TERM.	THIRD TERM.
Veterinary Anatomy, 5.	Veterinary Science, 3.	Veterinary Science, 2.
Horticulture, 4.	Agriculture, 2.	Agriculture, 1.
Stock Breeding, 3.	Dairy Husbandry, 4.	Dairy Husbandry, 4.
General Chemistry, 3.	Stock Breeding, 3.	Stock Breeding, 3.
	General Chemistry, 3.	General Chemistry, 5.

Students who have completed this course may take the Junior and Senior years in the College of Science and graduate with the Degree of Bachelor of Science.

AGRICULTURAL JOURNALS.

We believe that the mind is strengthened by the intelligent perusal of good papers, and also that the farmer who reads the best agricultural papers will be able to intelligently realize the experience of others. We keep the following list of papers on file for the benefit of agricultural students in particular:

- Arkansas Farmer*, Little Rock, Ark.
- Arkansas Stockman*, Little Rock, Ark.
- Breeder's Gazette*, Chicago, Ill.
- Farmer's Review*, Chicago, Ill.
- American Farmer*, Baltimore, Md.
- Southern Cultivator*, Atlanta, Ga.
- Prairie Farmer*, Chicago, Ill.
- Texas Stockman*, San Antonio, Texas.
- Breeder's Journal*, Beecher, Ill.
- Grange Bulletin*, Cincinnati, Ohio.
- Rural World*, St. Louis, Mo.
- Journal of Agriculture*, St. Louis, Mo.
- Industrialist*, Manhattan, Kan.
- Country Gentleman*, Albany, N. Y.
- Canadian Entomologist*, Toronto, Ont.
- Kentucky Stock Farm*, Lexington, Ky.

Live Stock Journal, London, England.
Chemical Society's Journal, London, England.
Royal Agricultural Society's Journal, London, England.
Home and Farm, Springfield, Mass.
Western Resources, Omaha, Neb.

The majority of the above journals are donated by their respective publishers, to whom we are very thankful.

SCHOOL OF MECHANIC ARTS AND ENGINEERING.

FACULTY.

E. H. MURFEE, President and Professor of Psychology and Ethics.
C. V. KERR, Professor of Engineering.
O. C. GRAY, Professor of Mathematics.
A. E. MENKE, Professor of Chemistry and Physics.
R. H. WILLIS, Professor of English and Modern Languages.
JEROME MCNEILL, Professor of Biology and Geology.
J. F. HOWELL, Professor of History and Pedagogics.
R. W. DOWDY, Professor of Military Science and Tactics.
G. C. SCHOFF, Adjunct Professor of Civil Engineering.
H. B. SMITH, Adjunct Professor of Electrical Engineering.
W. B. BENTLEY, Adjunct Professor of Chemistry.
G. W. DROKE, Adjunct Professor of Mathematics.
ELLA CARNALL, Adjunct Professor of English.
S. E. MEEK, Adjunct Professor of Biology and Geology.
S. L. GRINSTEAD, Instructor in Wood Working.
WM. M. GILMORE, Instructor in Foundry and Forging.
MACK MARTIN, Instructor in Machine Shop.
JESSIE L. CRAVENS, Instructor in Elocution.
WILLARD FRENCH, Engineer.

REQUIREMENTS FOR ADMISSION.

(See Pages 36-40.)

GENERAL DESCRIPTION OF COURSES IN ENGINEERING.

MECHANICAL ENGINEERING may be defined as being the application of mathematics to science, with particular reference to the *design and fabrication* of all forms of machinery, and the use of steam and water as motive powers. Since engineering is the combined science and art of utilizing the forces and materials of nature, and since this utilization is accomplished in nearly all cases by machines, or by processes work-

ing through machines, it is evident that *mechanical engineering is the basis of all art and industry.*

CIVIL ENGINEERING embraces the location and construction of railroads, canals, waterworks, sewerage systems, foundations on land and in water, tunnels and superstructures; the surveys, improvements and defenses of coasts, harbors, rivers and lakes; the application of mechanics, descriptive geometry and graphics to the design and construction of arch bridges, roofs, truss and suspension bridges; irrigation and drainage of lands; and the preparation of forms of specifications and contracts.

ELECTRICAL ENGINEERING deals with the design and construction of dynamos and motors; the distribution of electricity for use in illumination, or for driving machinery; the construction and operation of electric railways; the erection and management of telegraph and telephone lines, and with the electrolysis or welding of metals.

The courses in engineering offered are designed to supply not only mental training but the means for insuring a livelihood in the professions to which they lead. It is believed that the most efficient way to teach theory is to unfold it to the student only so fast as he can apply it to the practical work of his course. He thus makes it his own, and theory becomes practice.

COURSE IN MANUAL TRAINING.

The Course in Manual Training, covering four years, is intended to replace the old apprenticeship system, and, at the same time, give the youth instruction in English, mathematics, science, drawing, the principles of mechanism and steam engineering. The recent growth of Manual Training Schools, not only here, but in Europe, is phenomenal. The apprenticeship system is now practically obsolete; hence the need of Manual Training Schools. The only opportunity offered to the youth of the State to obtain this instruction is given by the University, whose equipment and work of instruction has been so planned that we are able to offer:

(a.) A course in general shop work, extending over three years, followed by a fourth year's work in one of the shops selected by the student. The design is to enable a young man to acquire considerable skill and a sound basis for the trade he may want to follow.

(b.) A course in general shop work, extending over three years, followed by a fourth year's work in the management of boilers, engines, dynamos and electric light systems. This course is intended to train young men for the practical work of running steam plants or electric light stations.

(c.) A course in general shop work extending over three years, together with class room work in the history, theory and practice of teaching, followed by a fourth year's work in handling classes in the shops and in laying out series of practical exercises. Shop instructors really qualified for their work are hard to find, and the course is an attempt to provide a means for training young men for such work in our own institution and in other schools where manual training is in practice.

FRESHMAN CLASS.

First Term—Algebra, 5; English, 3; Physics, 4; Machine Shop Practice, 2; Drawing, 1; Shop Work, 2; Physical Laboratory, 1.

(c.) Pedagogy, 2.

Second Term—Geometry, 5; Rhetoric, 3; Physics, 4; Machine Shop Practice, 2; Drawing, 1; Shop Work, 2; Physical Laboratory, 1.

(c.) Pedagogy 2.

Third Term—Plane Trigonometry, 5; Rhetoric, 3; Physics, 4; Machine Shop Practice, 2; Drawing, 1; Shop Work, 2; Physical Laboratory, 1.

(c.) Pedagogy, 2.

SOPHOMORE CLASS.

First Term—General History, 4; General Chemistry, 3; Chemical Laboratory, 2.

(a.) Elements of Mechanism, 2; Drawing, 2; Shop Work, 2.

(b.) Steam Engines, 3; Management of Boilers, etc., 3.

(c.) School Management, 4; History of Manual Training, 1; Shop Teaching, 3.

Second Term—Elementary Mechanics, 3; General Chemistry, 3; Chemical Laboratory, 2; General History, 4.

(a.) Machinery and Mill Work, 2; Drawing, 1; Shop Work, 2.

(b.) Steam Engines and Pumps, 3; Management of Boilers, etc., 3.

(c.) History of Education, 3; History of Manual Training, 1; Shop Teaching, 3.

Third Term—Masonry Construction, 3; General Chemistry, 5; Chemical Laboratory, 2.

(a.) Machinery and Mill Work, 2; Drawing, 2; Shop Work, 2

(b.) Boilers, 3; Management of Boilers, etc., 3.

(c.) Science of Education, 4; Shop Organization, 2; Shop Teaching, 3; Civil Government, 3; School Law, 3. Omit General Chemistry and Chemical Laboratory.

NOTE—Students take the required studies, and those in courses (a), (c) or (c), according to the work for which they wish to fit themselves.

NOTE—On completing this course, students receive an appropriate degree.

CIVIL, MECHANICAL AND ELECTRICAL ENGINEERING.

FRESHMAN CLASS.

First Term—Algebra, 5; Rhetoric, 3; Physics, 4; Machine Shop Practice, 2; Physical Laboratory, 1; Drawing, 1; Shop Work, 2.

Second Term—Solid Geometry, 5; Rhetoric, 3; Physics, 4; Machine Shop Practice, 2; Physical Laboratory, 1; Drawing, 1; Shop Work, 2.

Third Term—Trigonometry, 5; Rhetoric, 3; Physics, 4; Machine Shop Practice, 2; Physical Laboratory, 1; Drawing, 1; Shop Work, 2.

SOPHOMORE CLASS.

First Term—Trigonometry, 5; General Chemistry, 3; Heat, 2; Surveying, 3; Chemical Laboratory, 2; Physical Laboratory, 1; Surveying Practice, 1; Drawing, 1.

Second Term—Analytical Geometry, 5; General Chemistry, 3; Heat, 2; Surveying, 3; Chemical Laboratory, 2; Physical Laboratory, 1; Surveying Practice, 1; Drawing, 1.

Third Term—Differential Calculus, 5; General Chemistry, 5; Heat, 2; Surveying, 2; Chemical Laboratory, 2; Physical Laboratory, 1; Surveying Practice, 1; Drawing, 1.

CIVIL ENGINEERING COURSE FOR DEGREE OF B. C. E.

JUNIOR CLASS.

First Term—Differential Calculus, 5; Steam Engineering, 3; Geology, 3; Railroad Engineering, 3; Surveying Practice, 3; Drawing 1.

Second Term—Integral Calculus, 5; Steam Engineering, 3; Geology, 3; Railroad Engineering, 2; Surveying Practice, 2; Drawing, 1; Elementary Mechanics, 3.

Third Term—Analytical Mechanics, 5; Geology, 3; Masonry Construction, 3; Steam Engineering, 3; Surveying Practice, 3; Drawing, 1.

SENIOR CLASS.

First Term—Strength of Materials, 4; Metallurgy of Iron and Steel, 3; Astronomy, 4; Arches and Dams, 3; Surveying Practice, 1; Drawing, 1; Engineering Laboratory, 2.

Second Term—Hydraulics, 4; Stereotomy, 2; Sanitary Engineering, 3; Bridges, 3; Waterworks, 2; Surveying Practice, 2; Drawing, 2.

Third Term—Waterworks, 3; Bridges, 4; Engineering Structures, Specifications, 3; Law of Contracts, Patent Law, 3; Thesis Work, 5.

MECHANICAL ENGINEERING COURSE FOR DEGREE OF B. M. E.

JUNIOR CLASS.

First Term—Differential Calculus, 5; Analytical Chemistry, 5; Steam Engineering, 3; Elements of Mechanism, 2; Chemical Laboratory, 2; Drawing 2.

Second Term—Integral Calculus, 5; Elementary Mechanics, 3; Steam Engineering, 3; Machinery and Millwork, 2; Chemical Laboratory, 2; Drawing, 2.

Third Term—Analytical Mechanism, 5; Machinery and Millwork, 2; Steam Engineering, 3; Masonry Construction, 3; Chemical Laboratory, 2; Drawing, 2; Indicator Practice, 1.

SENIOR CLASS.

First Term—Thermodynamics, 3; Locomotive Engineering, 2; Strength of Materials, 4; Metallurgy of Iron and Steel, 3; Balance of Reciprocating Parts, 2; Drawing, 2; Engineering Laboratory, 2.

Second Term—Thermodynamics, 3; Theory of Compounding, 2; Valve Gears and Governors, 3; Engineering Tests, 2; Hydraulics, 4; Drawing, 2; Engineering Laboratory, 2.

Third Term—Thermodynamics, 3; Turbines, 4; Power Plants, Specifications, 3; Laws of Contracts, Patent Law, 3; Thesis Work, 5.

ELECTRICAL ENGINEERING COURSE FOR DEGREE OF B. E. E.

JUNIOR YEAR.

First Term—Differential Calculus, 5; Analytical Chemistry, 5; Electricity and Magnetism, 3; Elements of Mechanism, 2; Chemical Laboratory, 2; Electrical Laboratory, 1; Drawing, 2.

Second Term—Integral Calculus, 5; Elementary Mechanics, 3; Machinery and Mill Work, 2; Electricity and Magnetism, 3; Chemical Laboratory, 2; Electrical Laboratory, 2; Drawing, 1.

Third Term—Analytical Mechanics, 5; Machinery and Mill Work, 2; Electricity and Magnetism, 3; Masonry Construction, 3; Chemical Laboratory, 2; Electrical Laboratory, 2; Drawing, 1.

SENIOR YEAR.

First Term—Dynamo-Electric Machinery, 3; Storage Batteries, 2; Strength of Materials, 4; Metallurgy of Iron and Steel, 3; Engineering Laboratory, 2; Electrical Laboratory, 2; Drawing, 1.

Second Term—Dynamo-Electric Machinery, 5; Electric Transmission of Power, 3; Wiring Systems, 2; Hydraulics, 4; Electrical Laboratory, 2; Drawing, 2.

Third Term—Dynamo-Electric Machinery, 3; Electric Light and Power Plants, Specifications, 3; Turbines, 4; Laws of Contracts, Patent Law, 3; Thesis Work, 5.

SCHOOL OF SCIENCE.

FACULTY.

E. H. MURFFE, President, and Professor of Psychology and Ethics.
A. E. MENKE, Professor of Chemistry and Physics.
JEROME MCNEILL, Professor of Biology and Geology.
R. H. WILLIS, Professor of English and Modern Languages.
O. C. GRAY, Professor of Mathematics and Logic.
C. H. LEVERETT, Professor of Ancient Languages.
J. F. HOWELL, Professor of History and Pedagogics.
C. V. KERR, Professor of Engineering.
R. W. DOWDY, Professor of Military Science and Tactics.
W. B. BENTLEY, Adjunct Professor of Chemistry.
S. E. MEEK, Adjunct Professor of Biology and Geology.
ELLA CARNALL, Adjunct Professor of English.
G. W. DROKE, Adjunct Professor of Mathematics.
G. C. SCHOFF, Adjunct Professor of Civil Engineering.
H. B. SMITH, Adjunct Professor of Electrical Engineering.
JESSIE L. CRAVENS, Instructor in Elocution. ✓

REQUIREMENTS FOR ADMISSION.

(See pages 36-40.)

GENERAL STATEMENT.

The design of the courses of study offered by this school is first to afford students a liberal education with some branch of science substituted for Latin or Greek, and second to make some one subject in science so prominent that the graduate will have an excellent foundation for a profession. By requiring every graduate to spend at least three years on one branch of science, as chemistry or botany, he is obliged to go much beyond the easy introduction, which is all that is required in the old-fashioned B. S. course, so that he has the advantage of the severe mental discipline which a difficult study affords, and when this course is completed has the satisfaction of knowing that he is the possessor of special knowledge which can be turned to immediate use if he sees fit.

COURSE IN CHEMISTRY FOR DEGREE OF BACHELOR OF SCIENCE.

FRESHMAN YEAR.

Biology, 3; Physics, 4; English, 3; Mathematics, 5.

SOPHOMORE YEAR.

General Chemistry, 3 for two terms and 5 for third term; General History and Chemical Philosophy, 4; Heat, 2; French, 4; Elective, 2 for two terms.

JUNIOR YEAR.

Organic Chemistry, 3; Analytical Chemistry, 5 (first term); Mineralogy, 5 (second term); Elective, 5 (third term); Geology, 4; German, 4.

SENIOR YEAR.

Metallurgy, 3; Technical Chemistry, 3; German, 4; Elective, 5.

COURSES IN BOTANY AND ZOOLOGY.

These courses are especially designed to meet the needs of those who expect to become teachers of Natural Science in high schools or colleges. They at the same time afford an excellent course for those who expect to study medicine or who wish to do original work in some department of science.

COURSE IN BOTANY LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

FRESHMAN YEAR.

Biology, 3; English, 3; Mathematics, 5; Laboratory Work in Biology; Physics, 4.

SOPHOMORE YEAR.

Botany, 3; History, 4; Chemistry, 3; Laboratory Work in Botany; Laboratory Work in Chemistry, elective.

JUNIOR YEAR.

Botany, 3; Zoology, 3; Laboratory Work in Botany; Laboratory Work in Zoology; German, 4, elective.

SENIOR YEAR.

Geology, 3; German, 4; Laboratory Work in Botany; and Geology, elective.

COURSE IN ZOOLOGY LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

FRESHMAN YEAR.

Biology, 3; English, 3; Mathematics, 5; Laboratory Work in Biology; Physics, 4.

SOPHOMORE YEAR.

Zoology, 3; History, 4; Chemistry, 3; Laboratory Work in Zoology; Laboratory Work in Chemistry, elective.

JUNIOR YEAR.

Zoology, 3; Botany, 3; Laboratory Work in Zoology; German, 4.

SENIOR YEAR.

Geology, 3; German, 4; Laboratory Work in Zoology; and Geology, elective.

COURSES IN HORTICULTURE AND ENTOMOLOGY.

These courses are intended to train young men or young women for Agricultural Experiment Station work. The establishment of these stations in all of the States has created a strong demand for professional entomologists and horticulturists, and the demand has been and will continue for some years to be greater than the supply.

COURSE IN HORTICULTURE LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

FRESHMAN YEAR.

Biology, 3; English, 3; Mathematics, 5; Laboratory Work in Biology; Physics, 4.

SOPHOMORE YEAR.

Botany, 3; History, 4; Chemistry, 3; Laboratory Work in Botany, in Chemistry, French or German, 4.

JUNIOR YEAR.

Horticulture, 3; Entomology, 3; Laboratory Work in Horticulture, in Entomology, French or German, 4.

SENIOR YEAR.

Geology, 3; Botany, 3; Laboratory Work in Horticulture, in Botany, and in Geology.

COURSE IN ENTOMOLOGY LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

FRESHMAN YEAR.

Biology, 3; English, 3; Mathematics, 5; Laboratory Work in Biology; Physics, 4.

SOPHOMORE YEAR.

Botany, 3; History, 4; Chemistry, 3; Laboratory Work in Chemistry, Laboratory Work in Botany and Zoology; German or French, 4.

JUNIOR YEAR.

Entomology, 3; Zoology, 3; Laboratory Work in Entomology; German or French, 4, elective.

SENIOR YEAR.

Geology, 3; Laboratory or Field Work in Entomology, and in Geology; German or French, 4, elective.

THE SCHOOL OF LIBERAL ARTS.

FACULTY.

- E. H. MURFEE, President and Professor of Psychology and Ethics.
 C. H. LEVERETT, Professor of Ancient Languages.
 R. H. WILLIS, Professor of English and Modern Languages.
 O. C. GRAY, Professor of Mathematics and Logic.
 A. E. MENKE, Professor of Chemistry and Physics.
 J. F. HOWELL, Professor of History and Pedagogics.
 JEROME MCNEILL, Professor of Biology and Geology.
 C. V. KERR, Professor of Engineering.
 R. W. DOWDY, Professor of Military Science and Tactics.
 G. W. DROKE, Adjunct Professor of Mathematics.
 ELIA CARNALL, Adjunct Professor of English and Modern Languages.
 W. B. BENTLEY, Adjunct Professor of Chemistry and Physics.
 S. E. MEEK, Adjunct Professor of Biology and Geology.
 G. C. SCHOFF, Adjunct Professor of Civil Engineering.
 H. B. SMITH, Adjunct Professor of Electrical Engineering.
 JESSIE L. CRAVENS, Instructor in Elocution.

REQUIREMENTS FOR ADMISSION.

(See pages 36-40.)

CLASSICAL COURSES FOR DEGREE OF BACHELOR OF ARTS (B. A.).

This course is designed to furnish a liberal education, to give special mental discipline, and to prepare students to enter upon professional studies. The course is merely outlined here. For details concerning the studies mentioned consult Departments of Instruction, beginning on page 45.

COURSE I.

FRESHMAN YEAR.

Latin, 4; Greek, 4; Mathematics, 5; English, 3.

SOPHOMORE YEAR.

Latin, 4; Greek, 4; History, 4; Chemistry and English, 3.

JUNIOR YEAR.

Latin or Greek, 4; English, 4; Logic and Political Economy, 3; Elective, 4.

SENIOR YEAR.

Physics, 4; Psychology, 3; Latin or Greek, 4; Elective, 4.

COURSE II.

FRESHMAN YEAR.

Latin, 4; French or Spanish, 4; Mathematics, 5; English, 3.

SOPHOMORE YEAR.

Latin, 4; French or Spanish, 4 History, 4; Chemistry and English, 3.

JUNIOR YEAR.

Latin, 4; German, 4; English, 4; Logic and Political Economy, 3.

SENIOR YEAR.

Physics, 4; Psychology, 3; English or German, 4; Elective, 4.

Each class has such practical work as the subject requires.

GRADUATE COURSES FOR HIGHER DEGREES.

For graduate courses see Departments of Instruction, beginning on page 45. For Higher Degrees see pages 66 and 67.

THE NORMAL SCHOOL.

FACULTY.

E. H. MURFEE, President and Professor of Psychology and Ethics.

J. F. HOWELL, Professor of History and Pedagogics.

R. H. WILLIS, Professor of English and Modern Languages.

C. H. LEVERETT, Professor of Ancient Languages.

O. C. GRAY, Professor of Mathematics.

A. E. MENKE, Professor of Chemistry and Physics.

R. W. DOWDY, Professor of Military Science and Tactics.

EILLA CARNALL, Adjunct Professor of English and Modern Languages.

W. B. BENTLEY, Adjunct Professor of Physics and Chemistry.

G. W. DROKE, Adjunct Professor of Mathematics.

JESSIE L. CRAVENS, Instructor in Elocution.

REQUIREMENTS FOR ADMISSION.

(See Pages 36-40.)

The design of this school is to train teachers for the schools of the State. Technical instruction is begun in the Sub-Freshman, and finished in the Sophomore Class, satisfactory completion of the course entitling the student to a certificate of "Licentiate of Instruction."

The course includes all the branches required for State teacher's license by the school laws of the State, besides some other subjects with which a teacher should be familiar. After completing the normal course, students may take up in the Junior Class the work of any course for which they may be prepared and compete for the corresponding degree.

Psychology is made the basis of technical instruction, an outline of this subject being given in the Freshman Class, and special attention being given to the analysis of the intellectual processes. Students are encouraged and trained to study their own mental phenomena, and to note evidences of similar phenomena in the conduct of others, especially of children. The fundamental principles of teaching as deduced from psychical facts are presented, as also general methods of teaching based on these principles. Students are required to give much attention to principles as inculcated, and to methods as illustrated in approved pedagogical books and journals, a good selection of which is free of access in the University Library. At the same time they are taught to avoid a slavish dependence upon the methods of others, and encouraged to devise plans of their own.

The idea is continually made prominent that character building should be the grand aim of the teacher.

Further, the aims are:

First—To unify the work of our educational system by bringing the secondary schools and the University into close sympathy with each other.

Second—To teach pupils how to organize, grade and discipline the various kinds of schools.

Third—To give them a knowledge of general and Arkansas school law, especially the duties of teachers as officers of the State.

Fourth—To impart to them a valuable summary of the history of education.

Fifth—To aid them in creating for themselves high educational ideals, based on the principles of Christianity.

NORMAL COURSE LEADING TO THE CERTIFICATE OF LICENTIATE OF INSTRUCTION.

FRESHMAN YEAR.

Pedagogy, 2; Physics, 4; Mathematics, 5; English, 3; Latin, 4.

SOPHOMORE YEAR.

General Chemistry, 3 (first and second terms); Civil Government, 3 (third term); General History, 4; Science of Education, 4 (third term); Latin, 4; School Management, 4 (first term); History of Education, 3 (second term); School law, 3 (third term).

NOTE TO TEACHERS—The attention of young teachers is called to the course of study on page 60, where it will be observed that instruction is offered in certain lines of pedagogies for periods of three months, thus giving them opportunity to spend their vacations here on such work as they may be competent to do. From March to June methods of teaching may be studied with the Sub-Freshman class, pedagogy, embracing elementary psychology, with the Freshman class, and school management with the Sophomore class. From June to September methods may be studied with the Sub-Freshman, pedagogy with the Freshman and history of education with the Sophomore class. From September to December pedagogy may be studied with the Freshman, and school law and science of education with the Sophomore class. In addition to this technical work, teachers will find superior advantages here in other branches of learning should they desire to spend a vacation in fitting themselves for more thorough and higher work. Correspondence relative to the work of this department is cordially invited.

UNIVERSITY HIGH SCHOOL.

The High School is intended, first, to prepare students for any of the schools of the University; second, to furnish to those who cannot take a more extended course as good a general education as the limited time will permit; third, to give young men and young women an opportunity to obtain a good business education. To secure these ends three courses of study are offered.

REQUIREMENTS FOR ADMISSION.

I. *Arithmetic*.—Students are examined in Wentworth's Grammar School Arithmetic as far as percentage, and an accurate knowledge of all this is rigidly required. Teachers

preparing pupils for admission should require them to learn principles and definitions accurately and to analyze every example capable of analysis, or should give them thorough drill in mental arithmetic.

2. *English Grammar*.—Harvey's Elementary Grammar and Composition, Part I, with analysis.

3. *Geography*.—The whole of some complete manual of Geography, such as Maury's or Harper's.

4. *Reading*.—Students must be able to understand and to read intelligently specimens from McGuffey's Fifth Reader or from some work equally advanced.

5. *Spelling*.—Of any words contained in McGuffey's Fifth Reader.

SPECIMEN EXAMINATIONS FOR ADMISSION TO A CLASS.

Examinations will be of the same general character as the following:

I. ARITHMETIC TO PERCENTAGE, 2 HOURS.

1. A boy runs 3.870 miles, dropping a piece of paper every 4.75 feet. How many pieces does he drop?

Analysis: In one mile there are 5280 feet, and in 3.876 miles there are 3.876 times 5280 feet = 20,465.28 feet. If in 4.75 feet he drops 1 piece, in 20,465.28 feet he will drop as many pieces as 4.75 is contained in 20,465.28 feet, which is 4308 papers.

2. Reduce $\frac{3}{11}\frac{5}{7}$ to its lowest terms.

3. A owns $\frac{1}{4}$ of a ship worth \$25,748, B $\frac{1}{3}$ of the remainder, C $\frac{1}{2}$ of the amount belonging to A and B, and D owns what is still left. What is the value of D's share? Give full analysis.

4. Find cost of papering a room 32 feet long, 22 feet wide, 13 feet high, with paper 18 inches wide, 8 yards in a roll, at \$1.25 a roll, if 50 square yards be allowed for doors, windows and base boards?

5. The longitude of New York is 74° west, that of Paris is 2° 20' east. When it is 15 minutes past 10 a. m. in New York, what is the time in Paris?

II. GRAMMAR, 2 HOURS.

1. Name and define all the parts of speech.

2. Name and define all the different kinds of pronouns, all the different kinds of participles, and give an example of each kind.

3. Give three rules for forming the possessive case of nouns, with example of each. What is the possessive case of *conscience*?

4. Analyze the following sentences: (1) The boy that you saw, is my younger brother. (2) One soldier was present, when the roll was called.

III. GEOGRAPHY.

(See admission to the Collegiate Schools).

GENERAL COURSE.

A CLASS.

FIRST AND SECOND TERMS.

Mathematics.—Wentworth's Arithmetic, beginning with percentage, 5.

English.—Grammar and Composition, Harvey's Elementary, Part II, to end, 4; three original compositions per term corrected and copied.

History.—Egleston's United States History, 3.

Latin.—Jones's First lessons in Latin with references to Gildersleeve's Grammar, 4.

THIRD TERM.

Mathematics.—Wentworth's Algebra, 5.

English.—Same as first two terms, 4.

History.—Hempstead's History of Arkansas, 3.

Latin.—Jones's First Lessons in Latin with references to Gildersleeve's Grammar, 4.

SUB-FRESHMAN CLASS.

FIRST TERM.

Mathematics.—Wentworth's Algebra. Through quadratics involving one unknown quantity, 5.

English.—Meiklejohn's Grammar with six compositions each term, criticized by the teachers and copied by the pupil, 3.

Chemistry.—Elementary Course, 3.

Latin.—Cæsar, Kelsey or Greenough; Jones' Lessons and Gildersleeve's Grammar continued, 5.

SECOND AND THIRD TERMS.

Mathematics.—Wentworth's Geometry. Complete Plane Geometry, 5.

English.—Same as first term, 3.

Phy siology.—Martin's Human Body, Briefer Course, with simple experiments, 3.

Latin.—Three books of Cæsar completed, 5.

NOTE I.—Students taking the Normal Course will study Swett's Methods of Teaching three hours a week the first term instead of Chemistry, and two hours a week the second and third terms.

NOTE II.—Students in Chemical Course will take, in place of Latin in A class, Physical Geography and Shop work in first term; Physical Geography, Book-keeping and Shop Work in second term, and Book-keeping and Shop Work in third term in Sub-Freshman class, Chemistry in first term, and History of American Politics and Physiology in second and third terms.

ENGINEERING AND AGRICULTURAL COURSE.

A CLASS.

First Term.—Arithmetic, 5; English Grammar, 4; United States History, 3; Physical Geography, 2; Tools and Materials, 2; Drawing, 1; Shop Work, 2.

Second Term.—Arithmetic, 5; English Grammar, 4; United States History, 3; Physical Geography and Bookkeeping, 2; Carpentry, 2; Drawing, 1; Shop Work, 2.

Third Term—Algebra, 5; English Grammar, 4; History of Arkansas, 3; Bookkeeping, 2; Pattern Making and Moulding, 2; Drawing, 1; Shop Work, 2.

SUB-FRESHMAN CLASS.

First Term—Algebra, 5; English Analysis, 3; Civil Government, 3; Founding, 2; Drawing, 1; Shop Work, 2; Chemistry, 3.

Second Term—Algebra and Geometry, 5; English Analysis, 3; History of American Politics, 2; Physiology, 3; Founding and Forging, 2; Drawing, 1; Shop Work, 2.

Third Term—Geometry, 5; English Analysis, 3; History of American Politics, 2; Physiology, 3; Forging, 2; Drawing, 1; Shop Work, 2.

SHOP-WORK FOR ALL COURSES IN THE HIGH SCHOOL.

(See I and II, Department of Engineering.)

NOTE 1.—The students in Agricultural Courses take farm work in place of shop work and Drawing.

NOTE 2.—Students in the Manual Training Normal Course have the same studies as Engineering students in "A" Class. During Sub-Freshman year they take Pedagogics instead of Civil Government and History of American Politics.

NOTE 3. Candidates for admission to the Freshman class in the Schools of Engineering and Agriculture will be examined in the above course except the technical work, which will be required after admission. For specimen examinations see page 82.

COMMENCEMENT, 1891.

Friday, November 27th, 7:30 p. m.—Garland Society.

Saturday, November 28th, 7:30 p. m.—Concert.

Sunday, November 29th, 11 a. m.—Baccalaureate Sermon by Rev. Dr. J. L. Johnson, of Mississippi.

Monday, November 30th, 7:30 p. m.—Elocution and Physical Exercises.

Tuesday, December 1st, 10:30 a. m.—Competitive Drill; 7:30 p. m.—Philomathean Society.

Wednesday, December 2d, 2:30 p. m.—Battalion Review by the Governor and Trustees; 7:30 p. m.—Mathetian Society.

Thursday, December 3d, 10:30 a. m.—Commencement Annual Address by Hon. J. H. Rogers. Conferring of Degrees by the Governor; 7:30 p. m.—Alumni Address by J. B. McDonough, Esq., of Fort Smith.

ALUMNI ANNOUNCEMENT.

At a meeting of the Alumni Association, held December 3, 1891, the following officers were elected:

Lawrence Russell, President, Russellville, Ark.

A. J. Newman, Vice President, Lonoke, Ark.

L. Alice Patton, Secretary, Viney Grove, Ark.

Annie Waggener, Treasurer, Fayetteville, Ark.

The President was instructed to appoint an Executive Committee to prepare a programme for next Commencement.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY.

NAME.	Residence When a Student.	CLASS OF	Present Residence and Remarks
Botefuhr, Laura D.	Fayetteville, Ark	1875.	Mrs. G. W. Schulte, Fort Smith, Ark
Carson, Ann E.	Jonesboro, Ark		Mrs. John Knight, Jonesboro, Ark.
Carson, Augusta O.	Jonesboro, Ark		Mrs. T. W. Cline, Downey, Cal
Davis, Lizzie P.	Bentonville, Ark		Mrs. R. C. Brown, Florence, Arizona
McCart, Eva	Fayetteville, Ark		Mrs. D. M. Main, Cheney, Kansas.
McKinney, Chas. F.	Ozark, Ark		Traveling Salesman, Ozark, Ark
Moore, Lucy J.	Fayetteville, Ark		Mrs. Ross, Cincinnati, Ark.
Putnam, Anna	Fayetteville, Ark		Teacher in Public School, Fayetteville, Ark
CLASS OF 1876.			
Barnett, Nettie	Fayetteville, Ark		Mrs. C. Boles, Fayetteville, Ark.
Gorton, Belle L.	Aurora, Ill.		Author, Chicago, Ill.
Gregg, Alfred W.	Fayetteville, Ark		Deceased.
Harris, Agnes	Fayetteville, Ark		Mrs. Johnson, Kansas City, Mo.
Harris, Sara E.	Fayetteville, Ark		Professor in A. I. U. for several years - Mrs. C. P. Conrad, Kansas City, Mo
Johnson, Albert P.	Wesley, Ark		Lawyer, Winfield, Kansas.
Neal, W. H.	Van Buren, Ark		Lawyer, Van Buren, Ark.
Taylor, E. L.	Fayetteville, Ark		Farmer, Bentonville, Ark.
Waggener, W. J.	Farmington, Ark		Professor of Natural History, University of Colorado, Boulder, Col

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY—*Continued.*

NAME.	Residence When a Student.	Present Residence and Remarks.
CLASS OF 1877.		
Borden, Alice	Fayetteville, Ark	
Carden, E. B	Bloomer, Ark.....	Deceased.
Hawkins, J. T	Mount Holly, Ark....	Physician, Mount Holly, Ark.
Jennings, Edgar P	Fayetteville, Ark....	Fayetteville, Ark.
Massie, Collin	Fayetteville, Ark ..	Teacher in A. I. U., Fayetteville, Ark.
Mellette, W. M ..	Fort Smith, Ark	Lawyer, Fort Smith, Ark.
Simms, W. D ...	Bentonville, Ark	Deceased.
Waggener, Annie	Fayetteville, Ark	Teacher in A. I. U., Fayetteville, Ark.
Walker, J. V	Fayetteville, Ark ..	Lawyer, Fayetteville, Ark.
Watson, Charles A	Fayetteville, Ark	Teacher, Fayetteville, Ark.
CLASS OF 1878.		
Blakely, Nora	Fayetteville, Ark	Mrs. H. M. Hudgins, Hot Springs, Ark.
Gregg, Andrew S	Fayetteville, Ark ..	Physician, Fayetteville, Ark.
Pettigrew, Thomas A	Charleston, Ark ..	Lawyer, Charleston, Ark.
Reed, Maggie	Fayetteville, Ark ..	Deceased.
Sutton, William S	Fayetteville, Ark ..	Superintendent Public Schools, Houston, Texas.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY—*Continued.*

NAME.	Residence When a Student.	Present Residence and Remarks.
CLASS OF 1879.		
Butler, H. M	Varner Station, Ark	Teacher, Waco, Texas.
Floyd, J. C.	Bentonville, Ark	Lawyer, Yellville, Ark.
Harrod, J. H.	Lonoke, Ark	Lawyer, Little Rock, Ark.
Marrs, S. E	Viney Grove, Ark	Editor Democrat, Fayetteville, Ark.
Marshall, J. C	Avoca, Ark	Lawyer, Little Rock, Ark.
Patton, L. Alice	Viney Grove, Ark	Fayetteville, Ark.
Teague, C. V	Toledo, Ark	Lawyer, Hot Springs, Ark.
Wood, C. D	Hamburg, Ark	Judge Circuit Court, Monticello, Ark.
CLASS OF 1880.		
Droke, G. W.	Bentonville, Ark	Teacher in Arkansas Industrial University, Fayetteville, Ark.
Johnson, T. M	Wesley, Ark	Washington.
King, Artelle Alice	Fort Smith, Ark	Mrs. J. C. Belt, Broken, I. T.
Kitchens, T. B.	Jonesboro, Ark	County and Circuit Clerk, Paragould, Ark.
Langford, W. H	El Dorado, Ark	Merchant, Pine Bluff, Ark.
Patton, Mattie J	Viney Grove, Ark	Teacher, Viney Grove, Ark.
Ross, T. C	Fort Smith, Ark	Lawyer, Fort Worth, Texas.
Russell, Lawrence	Russellville, Ark	Lawyer, Russellville, Ark., Representative.
Tillman, J. N	Fayetteville, Ark	Lawyer, Fayetteville, Ark., Senator.
Williams, Naomi J	Fayetteville, Ark	Teacher in Arkansas Industrial University, Fayetteville, Ark.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY—*Continued.*

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NAME.	Residence When a Student.	Present Residence and Remarks.
CLASS OF 1881.		
Carnall, Ella	Fort Smith, Ark	Teacher in A. I. U., Arkansas.
Ellis, F. W.	Fayetteville, Ark.	United States Signal Service, Galveston, Tex.
Moore, J. J	Vineyard, Ark	Lawyer, City Judge, Helena, Ark.
Reed, Lina	Fayetteville, Ark.	Fayetteville.
Reiff, O. S	Magazine, Ark	Lawyer, Little Rock, Ark.
Watson, J. J.....	Fayetteville, Ark.....	Teacher in Australia.
CLASS OF 1882.		
Booth, W. P.....	Batesville, Ark.....	Farmer, Reyno, Ark.
Brown, W. D	Newtonia, Mo	Physician, Newtonia, Mo.
Carrigan, A. H.....	Washington, Ark.....	Lawyer, Wichita Falls, Tex.
Chausler, C. K.....	Washburne, Mo.....	Lawyer, Grant's Pass, Ore.
Cherry, W. R	Patterson's Bluff, Ark.....	Cashier of Bank, Paris, Ark.
Gregg, L. W	Fayetteville, Ark.....	Lawyer, Fayetteville, Ark.
Hon, Daniel	Waldron, Ark.....	Lawyer, Waldron, Ark.
Jones, Gustave	Jacksonport, Ark.....	Lawyer, Newport, Ark.
Lanier, J. A. M	Mountain Home, Ark	Principal Mountain Home Academy, Mountain Home, Ark.
McDonough, J. B	Bloomer, Ark	Prosecuting Attorney Twelfth Circuit, Fort Smith, Ark.
McFarlane, W. R	Enterprise, Ark	Lawyer, Greenwood, Ark.
Oats, T. F	Russellville, Ark.....	Physician, Mexia, Tex.
Pickel, J. W	Mulberry, Ark.....	Physician for Crystal Plate Glass Co., Crystal City, Mo.
Rogers, P. A	Rocky Mount, La.....	
Shell, G. C	Augusta, Ark.....	Lawyer, Lake Village, Ark.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY—*Continued.*

NAME	Residence When a Student.	Present Residence and Remarks.
CLASS OF 1883.		
Bates, C. O.	Cincinnati, Ark.	Professor, Coe College, Cedar Rapids, Iowa.
Cravens, Jessie.....	Fayetteville, Ark.	Teacher in A. I. U., Fayetteville, Ark.
England, W. W.	Evansville, Ark.	
Greaves, C. D.	Hot Springs, Ark.	Lawyer, Hot Springs, Ark.
Mayes, J. F.	Fayetteville, Ark.	Merchant, Fayetteville, Ark.
Stroup, Henry.....	Webb City, Ark.	Editor, Roseville, Ark.
Taliaferro, Lou.....	Bentonville, Ark.	Stenographer, Seattle, Wash.
CLASS OF 1884.		
Anderson, L. S.	Herndon, Ark.	Clerk in Land Office, Washington, D. C.
Duncan, W. H.	Conway, Ark.	Lawyer, Conway, Ark.
Edmiston, W. L.	Springfield, Mo.	Teacher.
Gates, D. A.	Tillar Station, Ark.	County and Probate Judge of Desha County, Arkansas City, Ark.
Goodwin, W. P.	El Dorado, Ark.	Editor, El Dorado, Ark.
Hillis, E. W.	Jonesboro, Ark.	Lawyer, Jonesboro, Ark.
Hudson, J. H.	Dardanelle, Ark.	Teacher and Farmer, Dardanelle, Ark.
Lake, Ella	Viney Grove, Ark.	Teacher of Music, Tahlequah, Indian Territory.
Reed, G. W. M., Jr.	Fayetteville, Ark.	Lawyer, Los Angeles, Cal.
Taff, J. L.	Waldron, Ark.	Principal Public School, Austin, Texas.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY—*Continued.*

NAME	Residence When a Student.	Present Residence and Remarks.
CLASS OF 1885.		
Hart, J. C.	Dardanelle, Ark.	Lawyer, Dardanelle, Ark.
Howell, J. W.	Clarksville, Ark.	Cotton Buyer, Clarksville, Ark.
Kinsworthy, E. B.	Black Colony, Ark.	Lawyer, Arkadelphia, Ark.
Notrebe, E. P.	Sarassa, Ark.	Physician, Booneville, Miss.
Woodall, W. H.	El Paso, Ark.	President Female College, Lake City, Fla.
Woolverton, C. D.	Center Ridge, Ark.	Principal Public School, Sheridan, Ark.
CLASS OF 1886.		
Bates, J. H.	Cincinnati, Ark.	Lawyer, Corsicana, Texas.
Leverett, Mary ...	Fayetteville, Ark.	Teacher High School, Austin, Texas.
Middleton, Mai.	Fayetteville, Ark.	Mrs. Robert Chasteen, Russellville, Ark.
Mulholland, Sara ...	Fayetteville, Ark.	Mrs. J. F. Mayes, Fayetteville, Ark.
Tillar, B. J.	Tillar Station, Ark.	Lawyer, Little Rock, Ark.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY—*Continued.*

NAME.	Residence When a Student.	Present Residence and Remarks.
CLASS OF 1888.		
Bowles, Preston	Hancock, Md.....	W. Va. Central, Elkins, W. Va.
Crozier, Wm. N.	Fayetteville, Ark.....	Missionary to China.
Danaher, Mike	Little Rock, Ark	Law Student, Little Rock, Ark.
Dickson, W. E.	Magnolia, Ark	Teacher, Waldo, Ark.
Drake, N. F.	Cincinnati, Ark	Assistant Geologist, State Geological Survey, Austin, Tex.
Flynn, W. M.	Fayetteville, Ark	Teacher, Oxford Bend, Ark.
Hobbs, John H.	Bentonville, Ark.	Lawyer, San Antonio, Tex.
Pace, Ida	Harrison, Ark	Teacher, Valley Seminary, Waynesboro, Va.
Polson, Alice	Fayetteville, Ark	S. W. Cy., Mo.
Powell, W. W.	Melbourne, Ark.....	Lawyer, Greenwood, Ark.
Schoff, Geo. C.	Annapolis, Md	Adjunct Professor in A. I. U., Fayetteville, Ark.
Treadwell, Lee	Toledo, Ark	Assistant Engineer, J. A. C. Waddell, Kansas City, Mo.
Warren, Geo. A.	Hazel Grove, Ark.....	Superintendent Public Schools, Fordyce, Ark.
CLASS OF 1889.		
Aiken, Don C. B.	Fayetteville, Ark	Engineering Department, Johnson Co., Johnstown Pa.
Fishback, L. F.	Fort Smith, Ark	Law Student, Austin.
Harrison, Grace	Washington, D. C.	Fort Smith, Ark.
McNeeley, John C.	Rackensack, Ark.....	Assistant Engineer N. O., N. & Ft. S. R. R., Natchez, Miss.
Obenshain, Ora.	Eureka Springs, Ark.	Teacher, Eureka Springs, Ark.
Slagle, Ida.	Hico, Ark	Mrs. Gilbreath, Hico, Ark.
Taff, Mary.	Fayetteville, Ark.	Teacher in Blind Institute.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY—*Continued.*

NAME	Residence When a Student.	Present Residence.
CLASS OF 1890.		
Taff, Albert G.....	Fayetteville, Ark.....	Deceased, 1890.
Humphrey, Gustavus A.....	Fort Smith, Ark.....	Medical Student, Fort Smith, Ark
Gannaway, Jno. R.....	Warren, Ark.....	Warren, Ark.
Harvey, F. L., Ph. D.....	Orino, Me.....	Orino, Me., Professor in Maine Agricultural College.
Hervey, W. Rhodes.....	Santa Anna, Cal.....	Santa Anna, Cal.
Morrow, Mattie M.....	Fayetteville, Ark.....	Fayetteville, Ark.
Wheeler, Jno. N.....	Warren, Ark.....	Warren, Ark

ARKANSAS AGRICULTURAL EXPERIMENT STATION.

The Agricultural Experiment Station was established in 1887 by the National Government, and is maintained by it. The object of the Station is to investigate problems relating to agriculture, to ascertain accurate and reliable information by experiments in the field and laboratory, on soils, fertilizers, the diseases of domestic animals, feeds, dairying, etc. The work of the Station is directed to questions that are of the most immediate practical importance to farmers, stock raisers and others. Two branch Stations are established at Newport and Pine Bluff to duplicate and make experiments applicable to the diversity of soil and climate of the State.

The Station undertakes to furnish, as far as possible, information to farmers and others on questions of importance relating to agriculture. Results of experiments are published in bulletins and mailed free to citizens of Arkansas who desire them and make application to the Director.



Hilberg - Sorber
S.L.

MEDICAL DEPARTMENT.

The Board of Trustees of the Arkansas Industrial University, in the spring of 1879, deemed it expedient to establish a *Medical Department*, to be located at Little Rock, the capital of the State. The organization was accordingly at once perfected, a full corps of professors secured, and the first annual announcement of a course of medical lectures, to commence October 7, 1879, was issued to the public.

Since this date an annual course of medical lectures, beginning early in October, and continuing five months, has been given at the Medical College building, situated on Second, between Main and Louisiana streets, Little Rock.

The growth of this branch has been gradual and natural, the first course of lectures, or session of 1879 and 1880, having twenty-two matriculates and one graduate, who had previously attended a course of lectures at another institution, or medical college, while the eleventh course of lectures, or annual session of 1889 and 1890, had seventy-eight matriculates and sixteen graduates, making the sum total of the eleven courses of lectures, or annual sessions, of five hundred and thirty-four (534) matriculates and one-hundred and twenty-five (125) graduates.

The old college building, situated on Second, between Louisiana and Main streets, which had served the purposes and necessity of the Faculty for eleven years, had become, through the growth of the institution, in the steady annual increase of its matriculates, inconvenient and practically inadequate. Therefore, after the close of the course of lectures in the spring of 1890, the old structure was disposed of to the best practical advantage possible, and a new site selected on Second and Sherman streets, and a new and convenient, as also imposing, structure erected, especially adapted to all the purposes and designs of a medical college. This building is three stories high, constructed of brick and admirably arranged for the comfort and

convenience of both students and instructors. It has a large, fine lecture hall, a splendid amphitheatre with chairs, a reading, museum, several private and elegant dissecting rooms, all well lighted and ventilated. In fact, it is a modern and model medical college building, and cost upwards of \$15,000.

The Faculty are all men of acknowledged ability and standing in their profession, and have been untiring in their efforts to advance the interests of this department.

The College is well provided with the necessary charts, models, apparatus, etc., for illustrating each particular subject practically to the eye as to the ear of the student. The supply of dissecting material is ample and at a mere nominal cost, the State having made liberal provision in this particular.

The clinical instruction in this institution is very extensive, embracing almost every disease known to prevail, and every class of accidents liable to occur. These clinics are always practical, and afford superior advantages to students and practitioners to obtain an ocular demonstration of diseases, accidents and their treatment.

For catalogue or special information apply to

R. G. JENNINGS, M. D.,
Secretary of Faculty.

Little Rock, Ark.

THE BRANCH NORMAL COLLEGE.

NUMBER OF STUDENTS, 215.

The Branch Normal College is a department of the Arkansas Industrial University, established pursuant to an act of the General Assembly of the State of Arkansas, approved April 25, 1873, and has been in operation since September 27, 1875. Its primary object is the training of teachers for efficient service in the colored public schools of the State—the law referred to having been enacted with special reference to the "convenience of the poorer classes." For the purpose of carrying out the intent of the law, by enabling those who wish to avail themselves of its advantages, there is no charge for tuition for appointees; the only requirements for admission being suitable age and qualifications, an appointment from one of the County Judges, and the payment of the entrance fee of five dollars.

LOCATION, ETC.

The school property consists of a beautiful tract of twenty acres of ground, in the suburbs of Pine Bluff, Jefferson County, Arkansas, and a few rods from the junction of the Little Rock, Mississippi River & Texas and "Cotton Belt" railroads. The school building, completed in 1881, and occupied January 30, 1882, is one of the handsomest educational edifices in the State, as well as one of the best, being warm and comfortable, well lighted and ventilated. It contains one large assembly room, four recitation rooms, and cloak rooms for males and females. The building is of brick, with slate roof and trimmings of Alabama granite, and cost, with improvements and furniture, \$12,000. The furniture and other equipments are of the best modern style.

The Normal Course of Study is not what goes by that name in many of our institutions; that is, a mere preparation for teaching the common branches, but differs from the usual college curriculum merely in the omission of one or two branches of higher mathematics, and having less in Greek.

The first two years of this course are intended to rank as the Freshman and Sophomore years of the usual college curriculum, and the last two years as the equivalent of the Junior and Senior years.

Eight classes have graduated in the institution, and, as will be seen in the list of the Alumni, are now occupying prominent positions in life.

Recently the entire building has been whitened, painted and repaired; new furniture and some new apparatus purchased.

The Reading Room has been fitted up in elegant style and an excellent beginning made toward securing a good library by the collection of about 1000 volumes. It has been supplied with quite a number of valuable newspapers and periodicals, many of which were furnished by their publishers. Among those on file were the *Freeman*, Indianapolis; *Western Appeal*, Minneapolis; *Gazette*, Huntsville; *The Gazette*, Little Rock; *Globe-Democrat* and *Republic*, St. Louis; *The Tyler*, Detroit, Mich.; *Popular Educator*, Boston; *Lippincott's Educational Quarterly*; *American Student*, New York; *Board of Education*, Chicago; *School Journal*, New York; *Weekly Echo*, Pine Bluff; *National Baptist*, Philadelphia; *Southern Review*, Helena, etc.

THE LIBRARY.

The Library consists of over 1500 volumes, embracing many valuable reference books, such as Appleton's Cyclopædia, Lippincott's Gazetteer, etc. It also has acquired by purchase during the last year a fine collection of the works of standard authors, Shakespeare, Milton, Irving, Cooper, Dickens, Longfellow, Carlyle, Tennyson. The library of the Principal, embracing many valuable text and reference books, including the Encyclopædia Britannica, is also accessible to students. A small collection of minerals, each of which is a typical specimen, and none of which are duplicates, has been procured. During the coming year a valuable supply of apparatus will be added to the educational resources of the institution.

THE DORMITORY.



FEMALE DORMITORY AND BOARDING HOUSE OF BRANCH NORMAL COLLEGE.

The commodious brick dormitory devoted to the use of female students is occupied under the supervision of the Principal and his wife. Quite a number of female students are accommodated with rooms and board at \$2 per week, payable in advance. These boarders are required to attend to their own rooms, and assist in turn in attending to the table. They are also expected to furnish their own bed linen.

In addition to the regular class exercises laid down in the curriculum of study, there are regular lessons in vocal music which are open to all the students. There are also facilities given for instruction upon the piano, organ, guitar and other instruments.

The meeting of the Normal Choir and Normal Orchestra afford excellent opportunities for practice in both vocal and instrumental music.

The length of the vacation allows advanced students an opportunity to engage in teaching, and a large proportion of their number have done so during the past five years. In nearly all cases they have given good satisfaction, and conduct their schools with a fair degree of success. The Normal students have also assisted in the work of the institution itself as a part of their training.

As a part of their training, the advanced students of the institution assist in the work of teaching.

It will be a great advantage to the institution if the various County Judges will take a special interest in seeing that their counties are represented. The proper blanks for making appointments will be furnished, together with all necessary information, on application to the Principal.

J. C. CORBIN, A. M.,

Pine Bluff, Arkansas.

